

# THE SCHOOL JOURNAL

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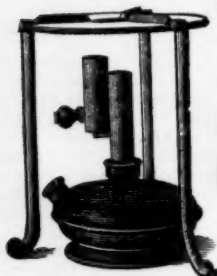
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# THE SCHOOL JOURNAL

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The business department of THE JOURNAL is on page 205.

All letters relating to contributions should be addressed plainly, "Editors of SCHOOL JOURNAL." All letters about subscriptions should be addressed to E. L. KELLOGG & CO. Do not put editorial and business items on the same sheet.



PUNISHMENTS that do not influence the growth of character, are useless; those which detract—even if but for a short time—from the good feeling that should exist between teachers and pupils, are dangerous; those which obstruct moral-character formation are disastrous.

The teacher who thinks that, because he knows all about arithmetic he is able to teach it, is greatly mistaken. Let him take up Page's "Theory and Practice of Teaching," and read that thoroughly, and if he is not cured of his error he will at least be set to thinking. Help to advance education by waking up the somnolent teachers in your neighborhood.

It is not teaching that will make the world good, but good teaching, by good men.

The policy of some school superintendents seems to be to delay the inauguration of reforms that are needed till the people rise up to demand them. One of these days the people will wake up and ask them to step down and out. A superintendent who is not a leader in educational affairs, but simply allows himself to be jostled along with the crowd, is of no use to any town.

In an educational journal we read that "It is not what we teach, it is how we teach that is essential." Why not say that it is not the kind of medicine a sick man gets that cures him, but the way it is given him. A great deal depends on *what* is taught in a school that aims to build up character. The anarchists of Chicago are said to maintain a school where hatred of law, bomb manufacturing, etc., form subjects of instruction. Why do people object to them if all depends on the *how* in teaching. Both the selection and arrangement of the subject-matter of instruction as well as the method of teaching, are essential and no teacher can afford to neglect either of them.

A plan that has been tried with success in many counties is to organize round tables for the study and discussion of the history, principles, methods, and civics of education. The teachers are graded into classes; an expert educator is chosen instructor; meetings are held once a week; questions are asked upon topics previously announced and studied; pedagogic discussions follow; model lessons are given to illustrate principles. We should like to hear from county superintendents and

teachers as to what plan they have adopted to further the cause.

Some well-meaning teachers strike out every wrong expression in written compositions and put in its place the correct one. How much more they might benefit their pupils if they would simply mark the mistakes and have them make the corrections themselves. The rule not to do anything for a child that he is fully capable of doing himself, applies in this case just as well as in instruction.

In order to form an accurate judgment of the educational needs of children and to administer to them in the right way the teacher should have an extensive experience with children. But how shall he acquire this? Experimenting upon minds certainly cannot be permitted. Besides, personal experience without a thorough knowledge of the theory of education would be insufficient. A particularly fruitful source of information and inspiration is the history of the educational work of the past. Not only does it give a clearer understanding of the pedagogy of the present day by showing its development, but it also offers to the teacher valuable experiences of those who labored in the educational field before him. Much benefit may also be derived from the observation of the practice of others, from consultation with expert educationists, from teachers' meetings, etc. The wide-awake teacher will find mines of available means of pedagogic self-improvement, and guard himself against "rust" that is apt to form on routine practitioners, who think it enough to be guided by experiences that have come to them and continue to present themselves without any appreciable effort on their part.

How would the physicians like it if a committee made up of lawyers, ministers, business men, and politicians should be appointed to examine them, determine how to treat their patients, and say what medicine to give them? Or, how would clergymen like it to have their professional work controlled by such a committee? Yet there are lawyers, physicians, and ministers who will accept positions on boards of education, and committees charged with work that only professional teachers can be expected to carry out. They should keep on their side of the fence, tell the mayors or whoever appoints them that they have not made a study of pedagogics, and make use of the opportunity to let the public know that there are men who make a specialty of education, and are experts in that line. They will render a great service to the cause of education if they do this. The public must learn to appreciate the fact that they need experts on the boards charged with the regulation of their children's education.



## Indicating Pronunciation.

By ELIZA B. BURNZ.

One great obstruction to the discussion of the subject of pronunciation in educational and popular journals is the want of a phonetic alphabet, composed of a sufficient number of marked letters and digraphs added to the present twenty-four letters, so that each character will be commonly understood to denote a certain sound. Such an alphabet was exhibited on page 493, of THE SCHOOL JOURNAL for November 26, 1892. Another difficulty lies in the fact that so few printing offices are furnished with the marked, or as printers call them "accented," type which are used in dictionaries to denote variously sounded letters. Were marked types at hand, and Webster's diacritics accepted as standard by teachers and educators, and generally understood by educated people, many interesting questions on the subject of pronunciation and kindred topics could be discussed and illustrated. Webster employs a double-dotted  $\bar{a}$  to denote the sound of  $a$  in *arm*. The letter  $\bar{h}$  is in use both in English and German to show that a preceding vowel has a long sound. We all pronounce  $\bar{a}$  and  $\bar{o}$  correctly without hesitation. In the same way  $\bar{u}$ , shows that the sound of  $u$  in *but* is lengthened, as it always is before  $r$  in a monosyllable, as *burn*, *hurt*, etc. In the following statements  $\bar{u}$  is used to denote lengthened  $\bar{u}$ , and  $\bar{a}$ , being more compact than  $\bar{a}$ , denotes the vowel in *arm*.

### PRONUNCIATION OF R.

The obliteration of  $r$  before another consonant appears to be now recognized as good pronunciation in England. This is evidenced by a set of phonetic Readers which have recently been admitted for use in the public elementary schools. In these Readers "farm" is represented by  $\bar{f}\bar{a}m$ , "stars," by  $\bar{s}t\bar{a}z$ , etc.

That the obliteration of  $r$  is prevalent also in America, although not sanctioned by our dictionaries, is apparent to teachers of Fonic shorthand. The foundation of the study of phonography is spelling by sound—the shorthand characters standing primarily for *sounds*, not for the letters of the alphabet. So the pupil's own pronunciation is soon made apparent. A rule is given that "all silent letters of the common spelling are to be omitted from the shorthand writing." Having learned the forty characters for the consonants and vowels, the pupils, on being required to connect them and form words, forthwith proceed to write  $\bar{b}\bar{a}$ ,  $\bar{f}\bar{a}$ ,  $\bar{c}\bar{a}$ , for *bar*, *far*, *car*, etc.;  $\bar{p}\bar{a}t$ ,  $\bar{h}\bar{a}d$ , for *part*, *hard*, etc. It is necessary to give a rule that "the letter  $r$  must always be regarded as a *sounded letter* and be denoted by its sign," and also to drill pupils on making the sound of  $r$ , before they comprehend that final  $r$ , or  $r$  before a consonant, is not a silent letter. Yet these students have, in nearly all cases, received a good school education.

When  $r$  succeeds  $u$ , and is final or followed by a consonant, the two letters,  $ur$ , are usually converted into  $\bar{u}h$ , that is into the vowel sound in *burn*; and *fur*, *cur*, *wer*, etc., are pronounced  $\bar{f}uh$ ,  $\bar{c}uh$ ,  $\bar{w}uh$ , etc. Also  $\bar{f}i\bar{e}$ , is  $\bar{f}iuh$ ; *care*,  $\bar{c}\bar{a}uh$ ; *nor* and *for*, are  $\bar{n}aw$ ,  $\bar{f}aw$ ; *horn*, *form*, *warm*, are  $\bar{h}awn$ ,  $\bar{f}awm$ ,  $\bar{w}awm$ ; *harm*, *hurt*, *work*, are pronounced  $\bar{h}\bar{a}m$ ,  $\bar{h}uh$ ,  $\bar{w}uhk$ . In fact the  $r$  appears to be regarded merely as an added letter for lengthening the preceding vowel.

In this obliteration of  $r$ , the spoken language is obeying a general law; that of proceeding on the line of least resistance. The proper sounding of  $r$  requires some turning up of the tip of the tongue; this is an effort, except when  $r$  occurs before a vowel, and natural inertia causes the tongue to remain unturned up at the end of words and before other consonants. Our Irish friends pronounce the  $r$  in *crust* as easily as we do in *crust*; but they have been accustomed to trill every  $r$  from childhood. The trilled  $r$  is usually considered objectionable in the classes of words to which I have referred; and it is a question for the consideration of educators, whether an effort shall be made to retain a distinct sounding of the smooth  $r$  in American speech.

If it is done it must be through the daily effort of teachers in the reading classes, and by constant example in their own speech. In this connection I offer an opinion that until phonetic analysis is thoroughly taught in all the schools, and children are daily used to separating *any* word into its elementary sounds, educated people generally will not be able to distinguish silent from sounded letters, or to know what sounds they utter; and pronunciation will remain as indefinite to the mind, and uncertain on the tongue, as it is now.

It seems to me that there is also a change going on in many vowel sounds. My pupils as well as some good speakers in America, and according to English usage I believe, give the sound of  $\bar{a}$  to long  $\bar{o}$  before  $r$  in monosyllables; so that *court* and *caught* are hardly distinguishable; *more*, *door*, *mourn*, etc., are pronounced  $\bar{m}awr$ ,  $\bar{d}awr$ ,  $\bar{m}awn$ . The  $r$  is not altogether thrown out in such words because it is easier to upturn the tongue after  $\bar{a}$  than after long  $\bar{o}$ , which requires more shaping of the lips. Again, few pupils can appreciate any difference in sound between the  $\bar{o}$  in *not* and  $\bar{a}$  shortened, as in *ask*. I have always considered the  $\bar{a}$  in *what* as equivalent in sound to  $\bar{o}$  in *blot*. But in these two words and others like them, it is the short  $\bar{a}$  sound that is recognized. The shortened  $\bar{a}$  sound is often extended to *god*, *dog*, *log*, etc.; sometimes  $\bar{a}$  takes its place. A complete phonetic alphabet may require a brief  $\bar{a}$  letter as well as a brief  $\bar{a}$ .

If the statements here made are doubted, they may be verified or disproved by those who will take the trouble, first, to practice audibly the eighteen vowel sounds until they are familiar to the ear, and drill also on the smooth  $r$  in combination. Second, to watch the speech of others and criticise it by the hearing alone, independent of prejudice engendered by the common spelling.

## To County School Officials.

The great evils in our public system are mainly two:

(1) that men and women of very moderate attainments are permitted to undertake the work of teaching, and (2) are permitted to continue in the work without *increasing their attainments*. The writer has seen a third grade certificate that had been renewed twenty times by various school commissioners in the state of New York. On calling State Superintendent Draper's attention to this, his keen intellect saw how this was against the current of the times and he limited third grade certificates to six months; the possessor must then take the second grade. Some may think as great an evil as the above is the change from teacher to teacher, as one trustee in Rockland county puts the case—"It's *new teacher* all the time." But if a teacher who received a third grade certificate was put upon a course of study (as a young man is who enters a college), if the months of July and August were required to be spent by that teacher in being reviewed upon the studies he had pursued during the months he had been engaged in teaching, a different set would be brought into the school-rooms, and a decided step made in the matter of permanence.

My proposition is that the aim of the state should be to make a *professional teacher out of every one that engages in teaching*—that is, to push every one along from the third grade to the state certificate grade. It is the weak spot in the system that this is not done. The educational funds of the state are wasted; the rights of the children to have the best teachers are trampled upon; the system is merely a machine; the whole current of the times is unobserved.

The remedy is plain: (1) Mark out a Teachers' Course of Study, say of six years; let it interlock with the course in normal schools. (2) Open state summer schools to pursue the first three years of the course during July and August. (3) Those who want a Third Grade certificate must attend and study—be put in the lowest class. The studies they must pursue while teaching will be given them. (4) Those who want a Second Grade certificate must attend and be reviewed on the



studies given out and receive suitable instruction, and so of the First Grade people.

A plan like this is indispensable to the welfare of the schools. Not to make such a move is to be unobservant of the signs of progress. The teachers want to go forward. Notice the reading circles' effort. In the state of New York they sustain a *summer school at their own expense* at Glens Falls, paying out to professors probably \$10,000 annually. The reading circle fails because the need of teachers and class work is wanting, but it is significant of the desire of the teachers to go forward.

An earnest appeal is now made to the county school officials in the state of New York, not only, but to those in every state, to lay plans for creating *professional teachers*. By effort the professional teachers (holders of life certificates) might be one-half of the entire force in some of the states. The present patchwork plan has had its day. Gentlemen, if legislation is needed procure it this winter. But there is no reason, in the state of New York, why a long-term institute might not be appointed in twenty-five counties. At the West long-term institutes have existed for many years. The defect is that they are not divided into classes and made to interlock with the normal schools; the attendant at one of them does not feel he is on his way to a life certificate.

Let the motto be, "Professional Teachers in every school."

## School Management.

A CASE OF DISCIPLINE.

By WILL SCOTT.

Coalville was a town of about 2,000 inhabitants, and the school children, as the teachers informed Mr. Potter, the new principal, were "utterly uncivilized." There seemed to be no law in the place, little religion, and less morality. The oldest boys were commonly regarded as outlaws, and the parents were little better than their boys.

School had been opened about a week when complaint was made to the principal that some of the boys of the grammar school had broken a pane of glass in a store window while returning from school. There were no extenuating circumstances, and it surprised no one when it transpired that the culprits were Tom Reese and Harry McKean, two notorious incorrigibles.

As school was about to be dismissed, the boys were informed by their teacher that Mr. Potter would like to see them in his office, to which place they slowly repaired, conversing in an undertone about the broken glass.

"I wonder how he found us out," said Tom.

"Oh, some of the tattle tales must of give us away," replied Harry.

"Well, what do you think the old fool is going to do with us?"

"I dunno," answered Harry carelessly; if he is like old Hardy when we broke that other window, he'll try to club us to death. I have some of the marks on me yet, and pop had a notion to lick him for it; but if this new fellow, Potter, is like Miss Oracle, when we stoned the Jew and took his pack last winter, he'll give us a sermon, and if we let on we're sorry, he'll let us go. That's the way Miss Oracle did, ain't it?"

The question was not answered, for they had reached the office door.

"Come in, boys," said Mr. Potter, "be seated there until I am ready to talk to you."

What was to be done with such a case as this? Mr. Potter could whip them, but they had been whipped scores of times for similar offenses. He could give them a lecture, but that had been tried without avail. He could suspend them, but that was old to the boys, and they enjoyed it. Mr. Potter, however, seemed at no loss to know what to do, and he did what no one else ever did or ever would have done.

"Well, boys," said he, in a clear, pleasant tone, "it seems that you have got into trouble. Mr. Holland, the grocer, talks of having you arrested, and he may have you sent to jail. I should not like to see you go. I should like to do something for you, but I hardly know what I can do—do you?"

The boys hung their heads in silence. Neither ventured to deny his guilt, nor to suggest how Mr. Potter could be of any assistance to them.

"Now, I think I see a way out of the difficulty," resumed the principal. If you could pay for the glass, that might settle the matter. Have you any money?"

"Not any? Then, suppose that each of you ask your father for the money—"

"Mine would kill me," said Tom quickly.

"Pop would knock my brains out," echoed Harry, and there was silence again until Mr. Potter spoke.

"I want to help you boys out of this. I know you will never do the like again. Suppose you go to Mr. Holland this evening, tell him that you broke the glass and that you are going to pay for it to-morrow. Find out what the bill is, and if you can't get the money any other way, come to me and I'll lend it to you! You can pay it back when you get it. Do you agree to that?"

The boys were surprised, but they agreed to the principal's proposition. As they passed down the steps Tom said: "He isn't like none of the rest—is he? Where can we get the money to pay him?"

"Let us sell rabbits—you know our traps. If he gives us the money, I couldn't cheat him out of it—could you?"

"No," answered Tom; "we'll not cheat old Potter; he's usin' us square."

The boys stopped at the store, and with much embarrassment, confessed their guilt and offered to pay the damage, as they had been advised to do.

"Well, if this isn't a strange caper," ejaculated Mr. Holland in astonishment; "You boys have been annoying me now for three years and have done more than fifty dollars' worth of damage, and now offer to settle it all by paying for one pane of glass, just when I have the kind of a hold on you that I want. This beats me."

The boys were at a loss for an answer. The grocer gazed toward the floor a minute, as if in deep thought, and then continued: "Now, I'll tell you what I'll do. If you promise never to give me any more trouble, I'll repair the glass at my own expense and say nothing more about it."

The boys promised, and no further complaint was ever made against them while they attended the Coalville school. Their teacher gave this account of them near the end of the term:

"Tom Reese and Harry McKean are steadily mending their ways."

It certainly is very remarkable, when the matter is carefully considered, that in the state of New York (1) 3000 persons not teachers should voluntarily set to work to attain a diploma of the highest rank—a certificate good for life testifying to fitness in teaching; and by hard study 1000 of these are able to obtain the diploma they so much covet. And (2) that of the 30,000 persons who are teaching only about 25 annually seek such a diploma. If 3000 students yield 1000 life diploma holders what number ought 30,000 teachers to yield? Why are not these 30,000 pursuing a course of study? The Department of Public Instruction is supposed to aim at the good of the schools; can it do a better thing than to lay out a course of study for the 30,000 under its supervision which shall be articulated with the normal school course and by normal summer schools carry forward the whole body to higher stages of excellence?

What is said of New York is said of every other state. To give a third grade license to a young person and set him to drawing state money, and no more, is small business for a department of public instruction. Alexander wept because there were no worlds to conquer; what immense educational worlds there are yet to be gained.



## Science and the Schools.

By THE HON. A. S. DRAPER.

(From an admirable address to the Cleveland teachers, December 16, '93; it is full of noble thoughts.)

What is science? Some of the old writers called it "God's sight," and the characterization was not at all inappropriate. Science is the truth of the Almighty overcoming obstacles, working its way out through difficulties and marching on to its final triumph. Science and nature and Deity are very nearly the same. They are in full and harmonious accord. They constitute a power which is everywhere present and always active. No matter about any peculiarities of our personal beliefs, no matter in what kind of a church we worship, or, indeed, whether we worship at all, there is not one of us that does not realize the existence of such a Power in the world and does not know that it is everywhere present in the universe and that it is always active. We know that it controls both mind and matter; that flowers bloom and the electric current flows, and minds unfold and planets revolve and keep to their courses under its laws.

As one difficulty after another is removed and one achievement after another is accomplished, how mysteries are explained, how remote facts come into relationship, how the harmonies of the universe are established, and how we stand in the presence of the mighty Power that is behind it all!

### HARMONY WITH SCIENTIFIC KNOWLEDGE.

We have lived long enough to know how vital it is to our happiness and our usefulness that we keep in accord with the Power that rules the universe, and that we act in harmony with scientific knowledge. We have, all of us, experimented enough to see how dangerous it is to attempt to cross the boundaries which nature sets against human action. The human life which measurably expands to its possibilities must read the book of nature and act upon its precepts. The life which does this is enriched, gains capacity for enjoyment here, and will find itself in harmonious relations with whatever there may be in the hereafter.

### THE SCIENTIFIC SCHOOL-HOUSE.

Science is imperious. By consequences and results it has shown that no school authority dare disregard its injunctions, for its mission is to conserve the health of the pupils, and promote the effectiveness of the school.

It concerns itself with the character of the ground upon which the building is to stand and the conditions with which it is to be surrounded. It locates the building with reference to the points of the compass and the advantages of sunlight. It discriminates in material; it puts the basement floor above the water line: it regulates the height of stairs; it asks for sheltering porches and demands that outer doors shall swing outward. Above all, it looks to the size and shape, and temperature, and ventilation, and lighting of rooms. It says that the good health of each child requires at least twenty feet of floor space and 240 cubic feet of air space; that fresh air, right from the outside, is even more important than warm air, and that every child must have at least two thousand cubic feet of it per hour, if the necessity of rebreathing the same air and the consequent likelihood of disease is to be avoided.

### THE SCIENTIFIC TEACHER.

The last fifty years constitute a period which will be memorable, for that period has witnessed the rapid and mature development of the science of teaching, and that development has worked a complete revolution in the conduct of the schools. Our fathers were accustomed to think that anyone who knew a thing could teach it. They were far from the truth. Investigation and experience has shown the truth to be that the bare possession of knowledge is but one element in the equipment of a teacher. He must know human nature; he must understand the particular mind to be taught and be able to come into harmonious relations

with it; he must engage its attention, arouse its enthusiasm, and make it not only receptive of knowledge but eager for knowledge before it can gain knowledge which will give it strength. A mere imitator cannot do this; much less can one who knows nothing of scientific processes and is not even an imitator. Pestalozzi declared that "Education is the generation of power." The elements of power must exist for the generation of power. The teacher must understand principles and be able to employ the best methods at the right time and in the right way, with a trained and discriminating judgment. To-day there is no movement in progress which is more rapid and forceful than that towards the professional preparation of the teacher. It is true that the general public scarcely understand it yet. But the teachers do. The entire army of teachers is under its influence and on the advance. The ones who do not catch the spirit will have to go upon the retired list without a pension. The new recruits will have to meet larger exactions. The whole force is moving to a higher, because a more scientific, position.

### STUDY OF CHILD LIFE.

The span of the memory, the influence of the imagination, the force of reason—all of the processes of the child mind; the trend of the feelings, the strength of the attachments—all the natural likes and dislikes of children, need to be studied with scientific care in order to know how to make the work of the schools most prolific of good.

There is a rich field here for ridicule. That has been the common lot of science in all land and all ages. Still science is conquering the world. The truth keeps working its way out and marching on. It is doing so with majestic step in this case. The scientific study of the child and the scientific training of the teacher have already revolutionized the work of the schools to such an extent that a plain statement of what the new schools are doing is regarded by the last generation with disbelief or incredulity, and a plain statement of what the old schools did is felt by the new generation to be false or unfairly exaggerated.

### MANAGEMENT OF CHILDREN.

School discipline once was almost uniformly harsh. The government was not one of reason but of force. The teacher, if a woman, was employed in the summer time to teach the girls because she was related to the trustee, or his cousins or his aunts; and if a man, was employed to teach the boys in the winter, because he had superior strength, agility, and courage. The threatening talk and the menacing conduct of the teacher stirred up all the risibilities and combativeness of human nature. The teacher was thought great by the people if he could conquer the school after stirring its passions. A substantial ferule was always in sight. Frequently a rawhide whip was kept in the room. Many carried a rattan in their hand continually. Flagellations were of every day occurrence. Frequently they were cruel in the extreme. Struggles and blows and outcries, which no intelligent parent of our day would permit his child to witness, and from which he would either turn himself or which he would stop by force, were very ordinary. The ingenuity of the teacher was taxed to find methods and instruments of punishment. Children were made to hold weights at arm's length, to "sit on nothing" with the back against the wall and the feet at leg-length therefrom, or to do anything which would be excruciating, humiliating, and degrading. If they flinched they were whipped for it. To make the thing especially obnoxious boys were sometimes sent out to get whips with which to be whipped; and sometimes boys who were not involved in trouble were sent for whips with which to whip their brothers or associates, in order to make the affair particularly unbearable. These things seem impossible or gross exaggerations, but there is no one of them which, without pleading to very advanced age, I do not personally remember.

(TO BE CONTINUED NEXT WEEK.)



## The School Room.

FEB. 24.—LANGUAGE, THINGS, AND ETHICS.  
MAR. 3.—PRIMARY.  
MAR. 10.—NUMBER, SELF, AND EARTH.  
MAR. 17.—PEOPLE AND DOING.

### Lessons on Homonyms.

By E. E. KENYON.

Instead of the injurious plan of bringing homonyms together in sentences, suppose we try the following plan:

The class confuse week and weak, there and their, great and grate, here and hear, right and write, to, too, and two. The misfortune is that they have thought of two words instead of one, wondered which to use and used the wrong one, so that memory associates *it* with the idea as easily as it does the right one. What we want to secure is that the idea shall suggest but *one* word and that the right one—that the memory of the double association or the wrong association shall be completely obliterated by a reader recollection of the *right* association. This can be accomplished only by performing the associative act a great many times, for each separate case. For this purpose let the children copy the following sentences:

There are seven days in a week. The school week has five days. I have not failed once this week. Next week we shall have our Christmas exercises. It is two weeks since Thanksgiving day. Our baby is six weeks old to-day. Mr. Brown earns twenty dollars a week. (Pupils make original sentences about weeks and days.)

There is only one sun and one moon. There are too many stars to count. There are seven days in the week. Are there as many as that in the school week? The book lies there on the table. I laid it there. A knock—who is there? *There* means in that place. Stand there while I take your picture. (Original sentences containing *there*, meaning in that place.)

I am going to Boston. This whip is to play with. You are to copy these sentences. To be good is to be happy. Miss Lee is to be my teacher. I love to do right. It is wrong to tease the baby. My dog likes to play. This road leads to Norwood. (Original sentences containing *to* give, to laugh, to rain, to the woods, to New York, to the village.)

Washington was a great man. He was a great general. He was a great statesman. He was great even when he was a boy. It is great to be brave and honest. He was great enough to refuse to lie. Napoleon was a great general, but he was not great as a man. Shakespeare was great as a writer. Columbus was a great discoverer. *Great* means *grand*, or *large*. One of the three bears was called "the great, huge bear." (Pupils make six original sentences containing *great*, greater, and greatest.)

Here is a pretty state of things! Who has been here? Tommy came in here to play steam-cars. He placed a row of chairs here. Here are his muddy foot-prints. Here are his cap and whip. Papa does his writing in here. There is no place here for playing. *Here* means in this place. Tommy's toys are here, there and everywhere. (Original sentences containing *here*, meaning in this place.)

Write me a letter from home. Write about all the family. Write me what they are doing. Write me how they are. Does Jenny improve in her writing? Does she write better than she did? She could write her name a year ago. She wrote it nicely for me. Shakespeare was a great writer. He wrote plays and Dickens wrote novels. We have a typewriter at school. (Original sentences containing *write*, wrote, written, and writing.)

How pale and weak you look! What has made you so weak? My long illness weakened me. I shall use this cane while I am so weak. Which of these two threads is the weaker? Which of these three is the weakest? I don't like weak tea. Weak tea is better than strong. The house fell because the foundation was weak. (Original sentences containing *weak*, opposite of strong.)

This thread is too weak for use. My dress is too long. The water is too deep here for children. It is not too deep for good swimmers. There are too many windows in that house. I think so, too. No, there cannot be too many. Where are you going?—may I go too? May, too, would like to go. No, you are too late in asking. It would take you too long to get ready. "Too late, too late, ye cannot enter now!" (Original sentences containing *too* much, too tall, too few, too young, I too, he too, they too, etc. Also sentences containing *too* much to do, too tall to stand, too few to go round, too short to reach, too young to swim, too poor to afford, too beautiful to last, etc.)

Tell your brothers their dinner is ready. They may leave their caps in the hall. They may wash their hands upstairs. Tell them to brush their clothes. The workmen did their best. The children clapped their hands. Many sailors lost their lives in the storm. The flowers give their perfume freely. The birds sang out their glee. The shepherds were watching their flocks. (Original sentences containing their names, their hats, their boats, their wishes, their wounds, their minds or their other belongings.)

We have a grate in our parlor. Do you like a grate fire? Grate fires are cheerful. Every stove has a grate. Grates are made of iron. The grates in stoves are hidden. See me let this grate down. The grate was full of ashes. Can you burn coke in that grate? Our grate will take wood, coal, coke or any fuel. Does a smelting furnace have a grate? Volcanoes have no grates. (Original sentences telling about grates and grate fires.)

What do you hear? I hear some one talking. I cannot hear what he is saying. My hearing is not so sharp as it was. Old men cannot hear so well as young ones. Speak so that I can hear you. We hear with our ears. Add a letter to *ear* and you have what the ear does. Take a letter from *hear* and you have the organ that hears. The ear hears. Now I hear singing. I love to hear the birds in spring. I love to hear the linnets sing. (Original sentences containing *hear*, hears, heard, and hearing.)

Which is the right path? This one to the right. We shall go right if we take this road. I love to do right. Every one knows right from wrong. Do right and fear nothing. You have no right to do wrong. Have I a right to this seat? Yes, but it is right to give it to the lady. Some people claim a right to do as they like. Some claim a right to do as they ought. The right to do right is the highest right of all. This is the right of every American citizen. (Original sentences containing *right*, opposite of wrong and right an inalienable privilege.)

I have two eyes, two ears, two hands and two feet. I am one boy, not

two. Jack and I are two. One and one are two. Two and two and four. Two from two leaves nothing. Clay has two sisters. Father and mother make two parents. Saturday and Sunday make two days that we do not come to school. We attend school two hours in the afternoon. (Have pupils make up and write in words the addition table of two.)

1. In the above exercises the homonyms are kept as far apart as possible. *Weak* does not follow *week*, for fear of weakening the association of both with their respective ideas. Other exercises intervene, and when the children have forgotten *week*, *weak* is practiced upon.

2. An exception is made in the case of *to* and *too*, which are used so constantly together in sentences that practice in so using them should be given. This practice is afforded in the original sentences required to be built upon a set of phrases involving this construction.

3. In the directions for original sentences various precautions are taken for the exclusion of the wrong idea. Notice these and utilize them. Do not frustrate their intention by adding the negative in the following: Make six original sentences containing *there*, meaning in that place, NOT THE OTHER THEIR. (!) Avoid every suggestion that there is another their. By declining the verb, comparing the adjective or giving the plural of the noun, or by adding some concomitant idea (as grates and grate fires) fix the thought where you want it before the exercise in original application is begun.

4. Some of the above sentences are too "babyish" for the advanced pupils and some are too advanced for the little ones. Select to suit your grade and make enough more to give abundant practice. Omit "right, an inalienable privilege" with classes who cannot understand.

### Examples of Joining Words

(From "Longmans' Primary School Grammar.")

First Sentence.	Joining Word.	Second Sentence.
Pierre is French	and	Karl is German.
Annie is clever	but	her brother is a dunce.
Walter says	that	this clock is slow.
I believe him	because	he is truthful.
Fred went to bed	for	he was tired.
The girl walked carefully	lest	she should fall.
The children will come	if	they can.
We shall be with you at ten	unless	the train be late.
He came	though	the day was wet.
She must know	whether	she did it.
You may go out for a walk	as	it is fine.

#### EXERCISE 71.

Pick out the joining words.

Edward is honest and truthful. The child was tired and sleepy. The brother or the sister will pay you a visit. The man was contented though he was poor. Will you have tea or coffee? The third boy in the class is clever but careless. The little girl has traveled much, though she is young. You will get the prize if you deserve it. The story is true though you do not believe it. Tom was disliked because he was bad-tempered.

### Exercise in Paraphrasing.

Change the following lines to prose, correcting all mistakes:

"There was a man he had a clock—  
His name was Matthew Mears,  
Which he wound up regular every night,  
For almost twenty years.

Until at length that favorite clock  
An eight-day proved to be,  
And a madder man than Mr. Mears  
You needn't expect to see."

### Origin of Words.

The word *hearse* means a funeral car, trappings, and plumes. In North Germany a white death's head and cross-bones are painted on the panels. This word comes from *Hirpex*, the Latin word for rake or harrow. After a time we find in France the word *hearse* was applied to a triangular frame of wood which was suspended by a cord from the roof of the church, and was in the form of a harrow; it had sockets in which to insert candles—that is the *hearse* was a chandelier; it was taken down from overhead and mounted on a stand or post and used in the funeral service. Now a light frame of woodwork was placed over the body on which the pall was supported so the word *hearse* was applied to that. Then the word *hearse* was applied to a temporary canopy of timber, decorated with a profusion of tapers, and draped with hang-



ings and religious and heraldic banners, which were placed over the body during the funeral rites. When a body had to be carried a long distance, it was the custom to erect a bier of this kind in every church wherein it rested for the night. Next it was applied to the car or structure on which the body is borne to the grave.

## Physical Laws.

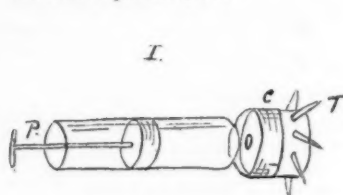
### EIGHT APPLICATIONS OF THE LAMP CHIMNEY TO ILLUSTRATE THEM.

By FRANK O. PAYNE.

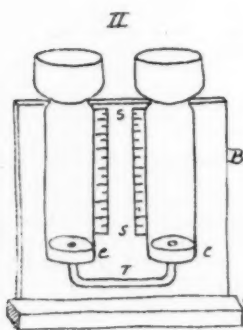
**Directions.** All that is needed is a liberal supply of lamp chimneys of the two patterns illustrated in figures I. and V., plenty of soft glass tubing, and some good corks or rubber stoppers. A round file or cork punch is needed for boring the corks.

**Cautions.** Be careful in selecting the straight chimneys, figures I., II., III., IV., and VI. Be sure that the inside of the tube is of uniform size, else when you come to cork them, the cork will be found not to fit, and in such experiments as figure I. the piston will not fit, being too tight at one point and too loose in another.

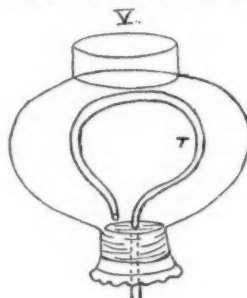
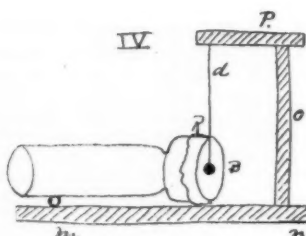
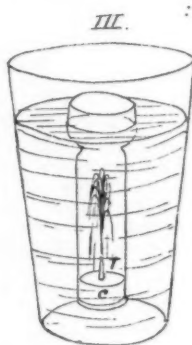
I. Pascal's Law. Stop the large end of a chimney with a cork, *c*, having a hole, *o*, half way through it, and having small bits of tubing, *T*, inserted to meet the central hole, *o*. Fill the chimney with water; insert the piston, *P*, and push. The water issues from each tube, flying in all directions, proving I., that fluids press equally in all directions. 2. That the force depends on the amount of pressure, etc.



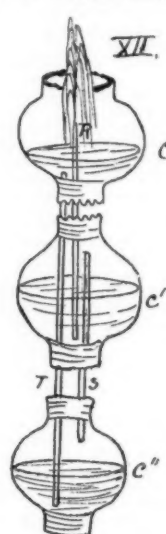
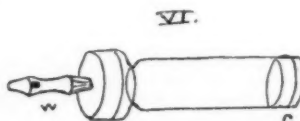
Pascal's Law.



Equilibrium of Liquids



Tantalus' Cup.



Hero's Fountain.

By removing the cork, *c*, and putting in one having no hole through it, we produce a pop-gun and illustrate the compressibility of air and the force of compressed air, etc.

By replacing this cork with one having a single opening, through which a piece of tubing has been inserted, a squirt-gun or syringe is made.

II. Make a standard out of a block, *a*, and a board, *B*, and fix two chimneys with a tube, *T*, and corks, *c*, *c'*, as figure II. Place two scales, *s*, *s'*, exactly alike as in the figure. The corks should be fitted very tight and it is well to have a quarter of an inch of melted paraffine candle to cover the inside of the cork to prevent leakage. When done, compare different liquids as mercury and water, kerosene and glycerine, ether and water. Care should be taken that any two liquids compared *differ greatly in weight* also that liquids be taken that *do not mix readily*. Thus kerosene and tar would not do to use, since they mix—alcohol and water, sulphuric acid and water, etc., belong to the same category.

III. Fit up a chimney as in figure III., passing a bit of tubing through the cork, having first melted it in an alcohol flame and drawn it out to a point. Immerse in water as in the figure and you have the fountain due to downward pressure of water outside.

Water seeks its level.

IV. Arrange a standard on a board, fig. IV., *m*, *n*, *o*, *p*; suspend a bullet or spherical button, *B*, by a fine wire or silk thread, *d*, stretch a piece of rubber tissue over the end of a chimney, *R*, and place it as in the figure, being sure to have the button touch the center of the rubber. The chimney should

be placed horizontal by laying a pencil beneath the farther end.

Speak or sing into the small end and the membrane will vibrate, causing the pendulum to swing back and forth. This illustrates in part the action of the telephone.

V. Tantalus' cup may be made as seen in figure V. Cork the upper end and having bent a piece of tubing, *T*, pass it through the cork. When water is poured into the "cup" it rises until the bend is reached, when all the water will flow out through the bottom.

If one is expert in bending tubing, it may be twisted into very strange shapes through which the water will flow in passing out.

VI. Tightly cork both ends of the chimney and file a hole in the middle of the larger end. Insert some filings of cork or lyocodium powder. Be sure the inside is perfectly dry. Fit a whistle into the hole and blow it. The powder or cork dust will arrange itself strangely inside the tube. Try larger whistles. Try willow whistles, police whistles, etc. What result?

VII. Hero's Fountain may be made of three bulging chimneys. Arrange the tubing as in fig. VII., being careful to make tight joints. Smear outside liberally with sealing wax. Much patience is needed to make this piece of apparatus a success, but I have seen it done many times when it worked perfectly.

VIII. Other apparatus made from lamp chimneys is more or less common. Barker's Mill, lifting-pump, force pump, and hydraulic press have been made to work admirably, and are described in many books.

Osmosis and diffusion are easily illustrated by this common article. Any teacher who tries it will be surprised at the large number of useful devices which can be made of lamp chimneys.

## Lessons on Common Things.

### AN ORANGE.

Who wants an — this morning? (Writes the word "orange" on the blackboard.) Here is a basketful, and you may each come to the table and get one to take to your seat. What do you suppose I want you to do with them?

"Eat 'em!" "Peel 'em." "Cut 'em."

(Dear, dear! Don't say 'em! T-h-e-m, them.) "Give them back." "Pay for them."

No; that is wrong. The others are partly right. We will study them first; then peel, cut and eat them. It may take some days to find out all we wish about them—but they are fresh and will keep. Now come quietly and help yourselves. Ah, Fannie; that was kind and thoughtful to carry Willie's for him. He is lame to-day from a fall. Willie, did you thank Fannie? No, I don't mind having you whisper softly, for such a purpose, when we are not studying quietly nor reciting. Then it *might* be different.

Now are we ready to say something about the orange? "It is bright." "Round." "Cold." "Dimpled."

That is a new word for the "pores" in the skin but I will write both in this column (teacher writes, under the word "orange," as the children talk) because we may want to speak in both ways. What else do we know about it?

"It is good to eat." "And for medicine." "And in cooking." "It grows in a warm country." "It is brought here in ships."

Yes; and when things are brought from other countries to ours



we say they are *imported*, "brought into port." But do we not raise oranges in our own country? Where? Why not in other parts of our land? Now let us go on with the talks. Who else can tell us something. My! Our blackboard is getting well filled!!

"It is yellow, like gold." "Juicy." "Solid." "A sphere."  
(Children who have not studied "form" will have to be led up to the last two words.)

"It is different sizes." "Costs money." "Ripens in winter."

Yes, and in summer, also.  
"It has skin." "Seeds." "Pulp."

(That may be a new word.)

"It has a white covering." "Cells." "Grows on trees." "It rots."

*Decays* is a better word, Lewis; but I will write both.

"We can buy 'em (*Them*, Louise!) by the dozen, by the box, or one at a time." "They make good shortcake." "And sauce." "And cake." "And extract." "We candy the peel." "And the pulp." "The juice is sweet." "And sour." "It is liquid." "The seeds are hard." "Bitter." "Large." "Have a husk." "Are white." "The white skin is bitter." "Is tough." "The yellow skin is brittle." "Tastes good."

But orange peel is not a good food. It "quarrels" with the gastric juice in your stomach, and is therefore in-di-ges-ti-ble. (Writing this word also.) Besides, it has a poison in those little holes, or pores, or dents, or *dimples* as Charlie called them.

"They are pretty on Christmas trees." "On the dinner table." "In the lunch basket." "With pale blue or dark green." "On white, or silver." "Or in glass—if the glass is clean and shiny." "They come in boxes." "Are wrapped in tissue paper." "The paper is twisted to hold it on."

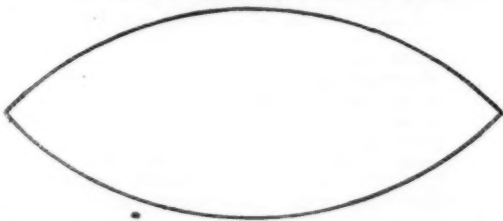
By this time the talk will have become slower, more thoughtful, on the children's part, when your work as a teacher or leader will come into play. They are learning to observe, to think, and to express thought. The "study" has occupied your spare time for several days in school, and if you have been caught searching cyclopedias for facts, books for stories, newspapers for stray items on the subject, that is no reason why you should show so much embarrassment in the matter! Are you just finding out your own possibilities and those of the every-day things by which your soul is led up and out?

Why, my dear! You have yet to cultivate the child's *imagination*, through this orange. Take him—in fancy, into a blossoming orange grove—let him see the bright foliage, feel the warm sun, hear the birds singing, and listen to the wail of the blossoms as they give way to the coming fruit, which they watch as it grows, ripens, is picked, packed, shipped, landed, purchased, sent across the country, finally reaching the "corner grocery" ready for you.

You have yet to give him the derivation of the word, the classification and analysis; to describe the difference between "fruit" and vegetable—or he may come to think that because "it belongs to the vegetable kingdom" it *is* a vegetable!

You have to teach him geography, climate, races of people, the business of importing and exporting, duty (I mean "tariff" of course, though just now that word carries dynamite in each syllable), custom-houses, ports, and ????

For manual-training the girls may use the following pattern, to



make an orange-basket for carrying pins, needle-case, thimble, hair-pins, etc., first cutting the sections in cardboard (old postal cards are good)—then covering with silk, satin, velvet or plush, joining all by overhand stitches, except one section which should be fastened at one tip only. Finish with small cord or ribbon. The boys may make the same—for a stamp holder—without covering, joining the sections by pasting Bébe ribbon over the edges. *This will require skill.*

"The sample copy of OUR TIMES that you sent me has impressed me so favorably that I have required some of the higher grades in my school here to subscribe to it. It seems to be just the paper I have been looking for, as we lay a good deal of stress on current history in our course of study."

Prin. R. M. KENNEDY, Jr.

"I find I cannot read a single issue of THE JOURNAL without getting an uplift in my work, something that will bring me to a higher ideal, and impulse to better work."

Florence, Wis.

Prin. E. D. ROUNDS.

## A Test of Progress in Attaining Accuracy.

By E. E. K.

The familiar game of "Rumor" may be utilized in the classroom. It is played as follows: Player No. 1, whispers some sentence to player No. 2, who passes it on to No. 3, etc., and the last one to receive the message announces it as heard. The original sentence is then announced, which is usually a widely different statement.

The teacher may begin by telling the story of the town-crier who was employed in one of the Southern cities to announce an approaching lecture. The announcement was "Peter Cooper will speak on the greenback question this evening." It became, as Sambo successively forgot what he had said last, "Peter Cooper will speak on the green this evening," "Mr. Cooper will speak on the Peter-back this evening," and "Green Peter will speak on the coop question this evening."

Then explain the game of "Rumor" and let it go once around, starting with the whispered announcement "There will be a meeting of the Law Committee at four o'clock," and comparing the message received at the other end of the line with the original.

Follow with a serious talk on the necessity of care in listening to a message and in giving it, in most cases, verbatim. Ask pupils to recall evil consequences that have arisen from carelessness in this regard and to suggest others that might have resulted from the mis-announcements just instanced.

Propose that each shall watch himself as a messenger and repeater of tidings and that the game of "Rumor" shall be played once a month as a test of progress in accuracy. Record the result of the game already played.

One month later, start a sentence on its rounds, with the understanding that it is to be given with painstaking distinctness and listened to with careful attention by each pupil in turn (each being careful, however, that only the next in turn hears the words). Compare the result with that of the first game. Record.

Repeat the test once a month, keeping up continually the earnest desire of the class to be accurate. (If you suspect any pupil to be in a "mood" which would lead him to wilfully spoil the test, send him on an errand or otherwise exclude him from the game without telling him why.)

## Ethics for the Botany Class.

From a Lecture by DR. ROBERT G. ECCLES.

The reciprocal selection of flowers on insects is remarkable. Only such insects as are able to fertilize the flowers by virtue of their forms and sizes can make a living and survive. Through countless generations each has fixed a line of conduct for the other, failure to pursue, which meant death. Nature's changes are usually fair exchanges. She leaves no permanent place for dishonesty. When the wild bees of the Tyrolean Alps pierce the bases of the aconite flowers and steal the honey without rendering a return in service by carrying pollen to the stigmas, the penalty is paid in succeeding years by starvation. Such inordinate haste to become rich on their part produces a subsequent dearth of aconite. No fertilization, no seeds; no seeds, no plants; no plants, no honey; and no honey, no bees. Here again we see that all suffer together, and that moral lapses are charged to the account of the whole community. We are our brother's keepers. Nature does not consider individuals in her reckonings so much as she does whole races. Like the signers of the Declaration of Independence "we must all hang together, or we will hang separate."

## Good Manners in Korea.

Where is Korea? Look on your globe. There, looking for the eastern part of Asia, you will find a long peninsula stretching down between the Yellow sea and the sea of Japan.

It is but a very few years, comparatively, that this strange country has been open to the world. Even China and Japan, exclusive as they once were, seemed to be fairly cordial and hospitable to strangers when compared to Korea, which, from its habit of "keeping itself to itself," was long known as "the Hermit Nation."

M. Varet, a Frenchman, who is one of the few foreigners who, as yet, have traveled extensively in Korea, thus describes his acquaintance with a Korean:

"We were in the midst of a vast plain bordered in the far distance by low hills. The rice fields which surrounded us formed an immense checker board. Here many men were toiling, plunged to their knees in water. Even the sight of so strange a creature as a European must have seemed to them, hardly made them stop for a moment from their toil. From time to time the



soldier who conducted our party would cause one of the workmen to raise his head, by asking him which one to take of the little crests of solid earth which separate the fields, and form the only paths.

"These paths are so narrow that only one person or animal can walk upon them at a time.

"Suddenly, we saw, walking solemnly toward us, a majestic looking old man, bearing a long and beautifully carved cane, such as is known among the Koreans as the 'staff of age.' He did not appear to be of a high rank, but at the sight of him each member of my long single file of soldiers, bearers, and servants hastened to step aside and leave the narrow path free for him, even though to do so they had to plunge knee deep into the muddy waters of the rice field. I, too, hastened to turn my horse into the water, for I would not wish a European to be outdone in paying homage to the majesty of age.

"As the old man passed on with an air of unconscious but absolute royalty, he rewarded our deference as any gracious sovereign might, with a look of calm friendliness. Being a Korean he knew that, however poor he might be, he was more worthy of respect than we by reason of his many years."—*Goldthwaite's Geographical Magazine.*

## Heathen Laws of Morals.

By JOHN G. PATON, D. D.  
(Missionary to the New Hebrides.)

The Rev. Dr. Howard Osgood, of Rochester, sends the following article, with this accompanying statement: "Some of my friends, who are ministers, asserted that the heathen have no idea of morals at all; that they do not even know it is wrong to eat human flesh, to steal, to lie, to commit adultery, and that of the lesser sins they have no idea whatever. You will therefore see the far-reaching chain of Dr. Paton's answers to a series of questions that I proposed to him. It agrees with pre-Mosaic, Egyptian, and Chaldean teaching, contemporaneous with the Old Testament."

1. "Have heathen cannibals a sense of wrong concerning anything?"

"Yes, concerning all they would not like others to do to them."

2. "Do they believe that there are certain things they ought to do, and other things they ought not to do?"

"Yes, even as cannibals they are so taught from infancy, by parents and others; but their code of morals is very imperfect, and often contradictory or obscure. Their worship is all propitiatory, to avoid sickness or punishment. They look on sickness or death as sent in revenge for wrong-doing."

3. "Do they punish blasphemy against their gods?"

"They look to the gods to punish."

4. "Do they punish their children if they will not worship their gods?"

"Not as heathen, for all do; but they often persecute young converts to Christianity, as lately on Malo and other islands."

5. "Have they their own strict laws of morality?"

"Yes, they had before white men's sinful habits destroyed them."

6. "Do they believe it is wrong for others to lie to them?"

"Yes, decidedly."

7. "Do they punish thefts from each other?"

"Yes, severely."

8. "Do cannibals know that it is wrong to eat human flesh?"

"Yes; but all killed for cannibal feasts are sacrificed to the gods, and bind all who eat of them to help each other in defensive and offensive warfare."

—S. S. Times.

## We Have All Seen Them.

People who are proud of their humility.

People who talk all the time and never say much.

People who never say much and yet speak volumes.

People who say a great deal and do very little.

People who say little and do a great deal.

People who look like giants and behave like grasshoppers.

People who look like grasshoppers and behave like giants.

People who have good clothes but very ragged morals.

People who have an idea they are religious mainly because they feel bad.

People who wouldn't kill a chicken with a hatchet, but who try their best to kill their neighbors with their tongues.—*Ram's Horn.*

"Now, James," said the school teacher, "remember that the secret of good reading is to read exactly as you would talk. Stand up straight and try to read your lesson just as you would speak it." James dutifully arose. The first sentence in his lesson was—"William, please let me take your kite a few minutes." James looked at it thoughtfully, and then exclaimed: "Hi, dere, Bill, gimme dat kite o' yourn a minute, or I'll break your face. See?" And then he added before the astonished teacher had time to interrupt—"Dat's de way I'd talk it." James' teacher has decided that some new principles of instruction are needed in her school.

—*Buffalo Express.*

## Supplementary.

### The First New England Apple Tree.

By CLARA E. COOPER.

To Peregrine White, the records say,  
First English child born at Plymouth bay,  
The colonists gave a tract of lands,  
Where now the town of Marshfield stands,  
Two hundred acres, maybe more;  
It stretched away from the sandy shore,  
And here within sound of the mighty sea  
He planted New England's first apple-tree.

The land was scarce more than a forest then,  
Over-run by the wild red-men,  
And Philip, proud king of the Indian race,  
Waged savage war on the meek, pale face.  
Peregrine White grew old and died,  
And was laid to rest by the ocean side:  
King Philip, too, became but a name,  
But the apple-tree grew on, just the same.

More settlers came to the country new,  
The land was cleared and the wheat crops grew;  
There were years of peace and years of strife,  
Such as are found in anyone's life.  
Some hundred and fifty years had passed  
When the colonists, roused by their wrongs at last,  
Declared that henceforth they would be free,  
And make their own laws in their own countree.

The tree stood there and heard from afar  
The Revolutionary war;  
Lexington's guns and Bunker Hill,  
We seem to hear their echoes still;  
How the patriots suffered at Valley Forge,  
Rather than yield to "old king George";  
And it heard in the distance the mighty shout,  
When Cornwallis from Yorktown was driven out.

It saw the states into one band joined,  
Saw the first American money coined;  
Saw the country's hero, Washington,  
At the head of the nation just begun:  
Saw afterward many New England men,  
Distinguished by use of the sword or pen,  
And more than one of them proudly stand,  
As president of our goodly land.

It saw state after state to the union come,  
Saw many seek in the West a home;  
Saw England try with might and main  
Her olden power to regain,  
And the proud Mistress of the Sea,  
Bow down to the Goddess of Liberty.  
Saw Mexico for pardon sue,  
To the starry flag of red, white, and blue.

Under its shadows Webster stood,  
And made his plans for his country's good.  
And it heard the news, as it circled round,  
That in California gold was found.  
So on for nearly a hundred years,  
With nothing much to arouse its fears,  
And then—how its branches shook with awe—  
Came the terrible tidings of civil war.

Massachusetts, first in war as in peace,  
Sent forth her sons to the slave's release,  
And the old tree shuddered through root and stem,  
As it thought of the fate that awaited them.  
Bull Run, Cold Harbor and wilderness,  
Shiloh and Gettysburg—who can guess  
How much of New England's blood was shed,  
How many of her bravest were laid with the dead.

Not shed in vain, for that "Grand Old Man,"  
None nobler than he since the world began—  
Freed the negroes from slavery's sway,  
By proclamation on New Year day.  
And the tree rejoiced when the news was brought,  
How Lee surrendered Appomattox court,  
And mourned with the nation for the blow  
That laid its honored leader low.

Soon followed days of prosperousness,  
When peace and plenty our land did bless:  
The giant Steam with its easy motion,  
Connected the east and the western ocean;



The electric cable the waves below,  
Made us friends with the land that was once our foe.  
United in brotherhood saw us stand,  
And claim first rank for our native land.

And still it stands with its gnarled old arms,  
Reaching out over well-tilled farms.  
In spring-time covered with drifts of bloom,  
Showering round a sweet perfume,  
In autumn bending its head low down  
Beneath the weight of its great fruit crown.  
And people come from miles around,  
To view that tree of Plymouth sound.

Oh! honor the elm where Washington  
Took command of his men when the war begun  
And honor Connecticut's Charter Oak,  
Where the colonists England's fetters broke,  
And honor the tree where William Penn  
His treaty made with the fierce red-men;  
But I say to you, all honor be,  
To the first New England apple tree!

### Forest Song.

A song for the beautiful trees,  
A song for the forest grand,  
The garden of God's own hand,  
The pride of His centuries.  
Hurrah for the kingly oak,  
For the maple, the forest queen,  
For the lords of the emerald cloak,  
For the ladies in living green!

For the beautiful trees a song,  
The peers of a glorious realm,  
The linden, the ash, and the elm,  
So brave and majestic and strong.  
Hurrah for the beech tree trim,  
For the hickory, staunch at core,  
For the locust, thorny and grim,  
For the silvery sycamore!

A song for the palm, the pine,  
And for every tree that grows  
From the desolate zone of snows  
To the zone of the burning line.  
Hurrah for the warders proud,  
Of the mountain-side and vale!  
That challenge the lightning cloud,  
And buffet the stormy gale.

A song for the forest aisled,  
With its gothic roof sublime,  
The solemn temple of Time,  
Where man becometh a child,  
As he lists to the anthem-roll  
Of the wind in the solitude,  
The hymn that telleth his soul  
That God is the Lord of the wood.

So long as the rivers flow,  
So long as the mountains rise,  
May the forests sing to the skies,  
And shelter the earth below.  
Hurrah for the beautiful trees!  
Hurrah for the forest grand!  
The pride of His centuries,  
The garden of God's own hand.  
—W. H. Venable.

### My Window Garden.

By HELEN GROVE.

"The winter has not a blossom," you say:—  
That shows how little you've looked around,  
For I see fresh flowers on the window pane,  
As pretty as those which spring from the ground  
In the blossoming time of May.

They are pure white flowers, with a tinge of red  
When the rays of the morning sun shine thro',  
And methinks, as I catch a glimpse of the sky,  
They take a tremulous tint of blue  
From the meadows overhead.

There is one thing, tho', that I must confess:—  
In these crystal flowers which I love so well,  
I miss the breath of the sweet, wild rose,  
The violet blue and the lily bell,  
With its magical power to bless.

## Editorial Notes.

Miss E. P. Hughes, preceptress of the Teachers' Training college at Cambridge, England, in her paper on "Impressions of American Educators and of American Education," read before the College of Preceptors at London, said: "I found in America two schools of thought, two parties, both desiring reform earnestly, but inclined to think it can be best gained by rather different methods. First, we have a group of earnest reformers who think that our greatest need is a more intimate, accurate and scientific knowledge of child nature. They encourage scientific observation of children, and this observation is being carried on by psychologists, teachers, and mothers. There is a most useful and powerful association of women graduates, and this association has a committee which is working at this matter. Dr. Stanley Hall may be regarded as one of the leaders of this school, and Professor Earl Barnes is also doing work in the same direction. Secondly, there is another group of reformers who believe a true philosophy applied to education is the great need of to-day, and that the Herbartian philosophy will satisfy this need. Dr. De Garmo, president of Swathmore college, is one of the ablest exponents of this school. An American teacher who has inspired many men, done much good, and has left his mark on American education, is Colonel Parker, principal of the Cook County normal school,—a fierce denouncer of mechanical methods and educational shams, a man with many friends and many enemies. His training college is certainly one of the centers of educational activity. His subject of investigation at present is the correlation of studies, the right relation of the different subjects which are used as means of education. There are sound educational veterans still working in America, reformers who have been long at work and yet keep touch with the young reformers of to-day, men like Henry Barnard and Dr. Sheldon, who have toiled long and toiled successfully and still count for much in the present educational development."

*The Educational Review* for the Atlantic Provinces of Canada speaks as follows of Lang's "Horace Mann" and "Rousseau and His 'Emile'": "the two latest additions to the Teachers' Manual Series published by E. L. Kellogg & Co.:

"These admirable little books will do much to popularize the History of Education. The contents of one of them can be pretty thoroughly mastered in one or two hours; but the new inspiration which they give to the teacher will last for months."

The *School Guardian's* comments on the so-called blunders of children that recently went the rounds of the papers are well worth a careful reading. Manufactured "child-humor" should not be encouraged. Usually it is not difficult to tell the genuine article from the counterfeit, if one will only use a little psychological judgment. Here is what our English contemporary writes:

"We abstained from commenting on the so-called blunders of children that recently went the rounds of the papers for the sufficient reason that many of them were obviously fictitious. We cannot believe that any teacher would be so foolish as to ask for the name of Noah's wife, and although the laws of the association of ideas will account for a good deal, we do not believe that, if the question were asked, any child would answer, 'Joan of Arc.' Both question and answer look as if they were either the product of the same mind or of two minds that had advanced beyond the stage of childhood without reaching that of maturity. The report of the minister of public instruction in Victoria for the year 1892-93 contains some children's answers that are more trustworthy and more interesting. In the colony of Victoria children are taught 'What to do till the doctor comes.' An inspector, examining a class on this subject, asked what steps should be taken if a child were bitten on the neck by a snake. The answer given was, 'Tie a ligature between the bite and the heart.' A girl was asked as to what should be done in the case of a person apparently drowned, and replied that she would send for a policeman. Another girl said she would 'cooey,' using the word employed by the natives to designate the utterance of a signal cry. A boy informed the inspector that a key was used to stop bleeding at the nose because the wind blowing through the keyhole makes the key cold. Such answers as these are helpful to the educationist. They throw light on the practical value of teaching such subjects as applied physiology to little children, and on the wisdom of setting children to reason from facts and principles that must, of necessity, be imperfectly apprehended. We do not by any means wish to discourage the collection of children's blunders; we only ask that the blunders shall be genuine and accurately reported. They will then have a real educational and psychological value."

The Cincinnati schools are to be supplied with an apparatus for projecting pictures illustrating the lessons upon the walls of the class-room. This is a sensible move. We should like to hear of other towns that have adopted the plan.

It is surprising that in most of the Southern states the public school enrollment shows a decrease of white pupils and an increase of colored ones. In Mississippi, for instance, a decrease of 7,527 is reported in the number of the former, and an increase of 1,437 in that of the latter. What is the true cause? Who will let us know?

THE SCHOOL JOURNAL comes weekly with its inspiring pages. I thoroughly appreciate its articles because I thoroughly appreciate the work you are doing.

L. MORAN.

St. Louis.



## Editorial Correspondence. II.

There is something in a tropical atmosphere that strikes notes in one's temperament quite different from those played on in the cool, bracing northern zones. The sun rises as it does with us, but the full force is turned on at once; there are floods of sunshine, yes, torrents of it. We strive even in these February days to get into the shade of a tree or a building. This seems to be a period of intense heat; there have been some rolls of thunder and fierce flashes of lightning, a few cooling showers to be followed undoubtedly by more bearable weather.

The schools of Jacksonville are of course divided among the whites and the blacks. The county superintendent is J. D. Mead, formerly of New Jersey. A county is here made the unit; the county superintendent is the man of destiny as far as school matters are concerned. The number of white children enrolled is 2,330, colored 2,521; number of white teachers, 90—colored, 65; amount paid for wages of former, about \$25,000,—for colored do, about \$14,000. Total cost of maintenance is \$50,000. This is derived from three sources: (1) the proportion of state, one-mill tax, \$6,000; (2) state school funds, \$2,300; (3) local county tax, \$11,700. This last is settled by local public sentiment.

It must be noted that the schools here (and what is true here is true of the entire South) are run by the white citizens; they do the planning, they pay the taxes; they pay twice as much as needed to defray the cost of their own schools. But this extra expense is a feature of the free school system everywhere. In New York city one half pay for themselves and the other half. This paying for "other half" is the great Christian feature in these rapidly moving centuries. It is doing the neighborly thing by the less fortunate. In the South, however, the whites are themselves struggling like men in the waves.

The present head of the school system of the state is a very able man indeed. While county superintendent of Alachua county he showed that he perceived the real key to the situation. Most county superintendents find themselves face to face with so many complex problems that they give way to the pressure of multitudinous obstacles, and settle down to license teachers, file reports, draw warrants, and "let things slide" in general; this is the easiest. They do not see their way out. Not so with county Supt. Sheats. He felt that the central point of the whole system lay in the *selection of the teacher*. He saw that of one hundred applicants for licenses who could pass the examination, not seventy-five had any fitness for causing and directing mental application and building up character. Having licensed and hired the teachers (both are practically done here by the county officer) he then went to see that they did their work efficiently; they were got together and instructed; so that he became an educational feature in the state. As state superintendent he aims to cause the teaching to be of a higher character. He has an ample field. It was said by one of the school board of Utica, N. Y.: "I have been looking around among the schools and what do I find? The schools are the hiding places of a lot of weak and inefficient persons." So any county or state superintendent will find if he looks around.

But what marks the able man is not to make such a discovery, but to find a way out. Horace Mann made such a discovery; as a remedy he proposed the founding of normal schools. The same has been done by every other state. But no state can furnish normal school facilities enough to train all the teachers needed; there must be training schools in each county, where the graduates of the normal schools may train the holders of third, second, and first grade certificates.

State Supt. Sheats has already moved energetically and wisely. (1) He has by legislation canceled the outstanding state certificates; (2) uniform examination questions are now issued from his office twice each year. Those getting not less than 60% obtain a third grade license; 70% obtain the second; 80% obtain the first; these are good for one, two, and three years respectively. He issues on examination a state certificate good for five years which may after about three years of successful teaching be followed by a state diploma.

If men like Supt. Sheats could only be continued in office a marvelous work might be accomplished. But our boasted American school system is erected on a political basis. His successor may desire to get the aid of some political fellow and give out state certificates with a liberal hand. Once walking the streets of Albany with the state superintendent then in power, we were stopped by a man from an interior county. After some conversation he said: "There is a young man whom I know very well, a very fine fellow, who wants a state certificate. I can vouch for his making good use of it. (?) "What is his name and address? I will send it to him." Such crimes were common in the Empire state; they are not so now.

If Supt. Sheats will (1) lay out a three years' course of study for the county institutes; (2) distribute the teachers into the classes, and press them along until they finish with a first grade license; (3) articulate these institutes with the state normal school course, that is, make them preparatory normal schools; (4) then, put those that cannot attend the state normal school into training for a state certificate, he will in a few years place Florida at the

head of the column. The task of having the teaching even in the poorest school-house done in a scientific manner is worthy of the ambition of every state superintendent. A plan such as is outlined above is about the only solution of this burning question.

The number of visitors is about one half of what are usually found here. Various reasons are assigned for this falling off: (1) The Chicago fair, (2) hard times, (3) the Mitchell-Corbett fight; the last mentioned was a bitter pill for the Florida people. This is a highly moral and religious state, as one can easily see on a short visit. The churches on Sunday are well filled, there are few crimes committed, life and property are safe. The coming of these pugilists to Jacksonville with their following of "sports," gamblers, saloon hunters, and betting men has inflicted a severe blow to the prosperity of the state. Those that come here during the winter are with few exceptions a very different class from those that go to Saratoga or to Long Branch; many are men and women identified with mental and moral progress; so the announcement of a brutal fight to come off here turned them aside.

There has been an apparent development of the state's resources since I first came to Florida nearly ten years ago. In no particular is this more observable than in the railroads; they were once poorly constructed and trains ran at slow rate. The Florida Central and Peninsular R. R., that reaches into 38 of the 44 counties has become an admirable line. It has lately absorbed the South Bound from Columbia, S. C., to Savannah, and built a new road from the latter place to Jacksonville, so that travelers from New York city arrive here in *twenty-nine* hours—a distance of about 1000 miles. This is worth a great deal to all Florida. By the same line you can go west to Tallahassee or southwest to Tampa. It traverses a region where lakes, large and small, are surrounded with orange groves. This section I described very fully in letters last year.

In the center of the state the St. John's river is found; it runs north until it strikes Jacksonville (so to speak) and then turns abruptly to the sea. Along this river is built the Jacksonville, Tampa, and Key West railroad; it follows the river to Sanford (crossing it twice on the way), then southwest over the tracks of the South Florida R. R., to Tampa; or southeast to the Indian river. It is a finely constructed railroad and managed with great efficiency. As I purpose to visit again the Indian river country with its famous orange groves I shall take this railroad and at Sanford swerve off to the southwest; ten hours of riding will bring one into a still more tropical country. A letter from a St. Paul correspondent says: "This country up here is not fit for civilized people to live in during the winter; this has been one of the worst for many years; mercury down to 10 and on to 30 below zero!" If I could but bottle up this tropical sunshine!

Jacksonville.

A. M. K.

According to a recent report of the Japanese government there are twelve public kindergartens in the large towns of the Mikado land, with an attendance of 768, and 14 private kindergartens with an attendance of 521 children.

Armour institute, Chicago, has opened evening classes in the department of electricity and electrical engineering. Very moderate rates of tuition are charged and many young people are availing themselves of the opportunity.

Prof. Henry Drummond, the British scientist, whose "The Greatest Thing in the World," and other religious addresses have made him many friends in America has been invited to the principalship of McGill university, Montreal.

The Tuskegee Negro Conference will hold its third annual sessions at the Tuskegee institute, Ala., Feb. 21. A meeting of the officers and teachers of colored schools in the South will follow the conference, for the purpose of comparing views and results. The last conference was attended by eight hundred colored people.

The people of Mountain Grove, Mo., have good reasons to be proud of the model academy conducted there by Prof. W. H. Lynch. The institution has now seven teachers and shows an attendance of more than four hundred pupils, representing nine states, and fourteen counties in Missouri. Prof. Lynch is a thorough-going, energetic, and progressive educator; he has hosts of friends among the teachers of the country who will be glad to hear of his success.

The State Normal and Training school at Oneonta, N. Y., burned down last week. The spread of the flames was so rapid that in less than two hours it was reduced to a mass of blazing ruins. The building was erected at an original cost of \$114,000, which had since been increased by additional appropriations for improvements and apparatus to about \$180,000. It was a handsome brick edifice. There were about 350 normal students and 150 intermediate students in attendance the present term.

The objects of the Manual Training Teachers' Association of America, which was recently organized, are "to secure co-operation in study and experiment; to disseminate information regarding the principles, progress, and development of manual training."

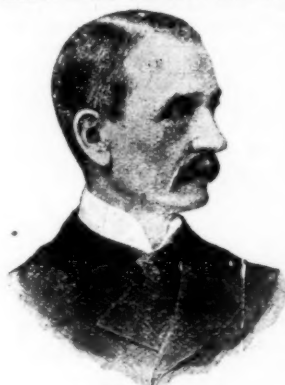


and to promote the professional interests of its members." The following have been elected officers for the ensuing year: President, Geo. B. Kilbon, Springfield, Mass.; vice-president, Geo. Robbins, Frankfort, Ky.; Sec. and Treas., Chas. A. Bennett, New York city.

### Drexel Institute.

(BY OUR SPECIAL CORRESPONDENT.)

Drexel institute of art, science, and industry, presided over by President McAlister, occupies a building superb in architecture, with a growing museum, free library, a score of courses of instruction and more than two thousand students; in two years' time it has taken a high place in our country. On Jan. 20, a memorial service of its founder, the late Anthony Drexel, of Philadelphia, took place in the great auditorium of the institute, in presence of a distinguished audience; the platform was crowded with an unusual gathering of eminent men, from many states. The memorial address, by Bishop Potter of New York, would richly bear reprinting for "supplementary reading" in every American institution of learning; not only as a model tribute to the admirable man who invested \$3,000,000 as "treasure laid up in heaven" in this school for the people; but especially for its masterly defense of men of great industrial genius who seize opportunities to perform the noblest service in the upper regions of modern civilization.



PRESIDENT McALISTER.

the American people is the more civilized nation of the two."

Only two generations ago, the founder of the Drexel family came to Philadelphia, as a young portrait painter, from Belgium. In a few years' work there, and through the South, he had pushed his paint-brush so briskly, that, to the amusement of his friends, he proposed to start a little bank. With his three sons he laid the foundation of the great banking house of the Drexels; represented in Philadelphia, New York, London, and Paris; known as the famous association of Drexel, Morgan & Co. The three sons have all died, leaving to their families a colossal fortune of perhaps \$100,000,000, and, best of all, with the public conviction that it has been honestly earned, as it is already being nobly used. Out of it, within two years, from the three families, has come the Drexel institute in the city, and two other remarkable schools of similar character; one especially dedicated to the instruction of colored youth. As all the legislation in Christendom cannot prevent men of commanding industrial genius from amassing gigantic fortunes, it would seem the sensible thing to turn off the current of denunciation against rich men, and turn on the current for the conversion of this, as of every class of men of genius, to that religion of love to God and man which makes vast wealth in consecrated hands one of the noblest agencies for building the kingdom of God on earth.

### Leading Events of the Week.

At a large meeting in Trafalgar square, London, it was voted that the British house of lords, in consequence of its many obstructions to legislation, was mischievous and useless.—One hundred thousand persons were in St. Peter's, Rome, to hear the Pope say the last mass of his jubilee year.—The nomination of Wheeler H. Peckham for justice of the U. S. supreme court was rejected by the senate.—John Y. McKane, convicted of complicity in the election frauds in the town of Gravesend, N. Y., was sentenced to six years imprisonment.—In the commercial treaty Russia makes many concessions to Germany, which are increasing the popularity of the measure in that country.—It is believed that a vast anarchist conspiracy has been discovered in France.—Yellow fever broke out on the U. S. cruiser *Newark*, at Rio, and she was ordered to Montevideo to be disinfected.—The boiler of a German warship burst at Kiel, and fifty men were killed.—It is reported from Warsaw that a plot to free Poland has been discovered.

If you decide to take Hood's Sarsaparilla do not be induced to buy any substitute.

## Correspondence.

### A Sentence from Holmes.

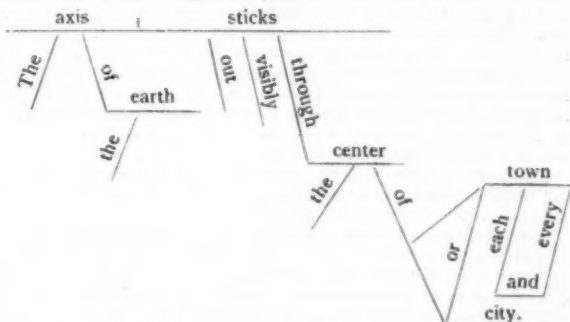
A flood of correspondence taking us to task for characterizing a sentence from "The Autocrat of the Breakfast Table," as "probably taken from a child's composition," testifies to the popularity of the genial author. We give our friend Mr. Scott's letter as an example:

I think your comment on the sentence, "The axis of the earth sticks out visibly through the center of each and every town or city," will hardly be satisfactory to the correspondent that inquired about it. The sentence, which is figurative and somewhat obscure, is from Oliver Wendell Holmes. Stripped of its figures it might be rendered thus: "Obviously, each and every town or city believes that the world revolves around it, or, in other words, realizes its own importance."

Grammatically, *each and every* modifies *town or city*.

WILLIAM SCOTT.

We shall readily be forgiven, even by the correspondent whose inquiry we failed to answer, if Miss Le Row's "The Young Idea" is referred to as evidence of the likelihood of our assumption. In its place, the sentence is a fine piece of irony, worthy the pen of the distinguished author who wrote it. Out of its place it is unintelligible, unless regarded as one of those unconscious sarcasms upon pedagogical method perpetrated by the children. *Because* it is a sentence most imperatively demanding context and tending to confuse young minds such as are usually set to work to diagram sentences, it is an unsuitable example for the purpose of the grammarian. Our main position with regard to it thus holds good. Since, however, many teachers are expected to use it for such a purpose, we offer the following diagram, in accordance with the original request:



It is a good plan in diagramming to turn modifiers that precede the word modified toward that word and those that follow it away from it.

Of diagramming in general let us express the belief that it has a place in the study of language—a very small one—as a purely mechanical means to two ends: First, it assists the pupil who is ready for it to a quicker perception of the relations of words in sentences, and of some of the laws of sentential structure than he could otherwise acquire; second, it affords the teacher a quick and ready mode of testing the pupil's knowledge of these points. When it is used apart from these purposes, when it is taught for itself alone, when it is made an end instead of a means, it deserves all that its most inveterate enemies have ever said about it.

In my reading I came across the word protoplasm and could find no satisfactory definition of it. Will you please give one? Also tell what microbes are.

J. H.

If you take a drop of water from a pond and look at it through a powerful microscope, among the tiny beings with which it abounds you will see a little speck of jelly, nearly round. It changes its shape frequently, sometimes appearing three-cornered, sometimes covered with knobs. This is a simple life cell; our bodies are made up of millions of them. The substance of which they are composed is called protoplasm. These little bodies are working all the time—growing, dividing, twisting, turning, and weaving themselves into graceful shapes. They make the body grow, heal injuries, repair waste.

In the air, in the soil, in the water, in and on living bodies are multitudes of minute beings called microbes. Some of them are harmless; others cause disease. When those bacteria that are our deadly foes attack the body the cells strive to repair the damage. If the microbes prevail death ensues; if not the disease caused by them is cured.

What is the "Reform Spelling," that is spoken of?

R. S.

The American Philological Association has recommended the following rules for new spellings, and a resolution has been introduced in Congress instructing the public printer to conform to them in all printing for the government:

1. Drop *ae* at the end of words like *dialogue*, *catalogue*, etc..



where the preceding vowel is short. Thus spell *demagog*, *epilog*, *synagog*, etc.

2. Drop final *e* in such words as *definite*, *infinite*, *favorite*, etc., where the preceding vowel is short. Thus spell *opposit*, *preterit*, *hypocrit*, *requisit*, etc.

3. Drop final *te* in words like *quartette*, *coquette*, *cigarette*, etc. Thus spell *cigaret*, *rosel*, *epaulet*, *vedet*, *gazel*, etc.

4. Drop final *me* in words like *programme*. Thus spell *program*, *oriflam*, *gram*, etc.

5. Change *ph* to *f* in words like *phantom*, *telegraph*, *phase*, etc. Thus spell *alfabet*, *paragraf*, *filosofy*, *fonetic*, *folograf*, etc.

6. Substitute *e* for the diphthongs *æ* and *æ* when they have the sound of that letter. Thus spell *colian*, *esthetic*, *diarrhea*, *subpena*, *esofagus*, etc.

What shall I tell pupils about electricity?

E. JEPSON.

An answer to this interesting question is condensed from *The Popular Science News*:

The popular text-books say that electricity is a "form of energy," a mode of motion, or "vibration of the molecules of the conductor," etc. How do we know that? If you rub a glass rod with flannel you have as much positive electricity on the glass as negative on the flannel and no more; if you bring a positively charged pith-ball into the room, just as much positive electricity leaves the room and runs to the earth; the total amount of electricity in the room remains constant. Electricity behaves like an incompressible fluid. You cannot get any more into the room you sit in than is already there. Edison says we cannot get any more electricity in the room by putting in wires. There was electricity in the room to start with. It was in the wires, in a state of rest, when they were put in place. "Turning on the current" starts electricity into the room, but starts it out at the same time. To comprehend this suppose we have a water motor, a supply and a discharge pipe in the room, all full of water and the valve closed. Turning on electricity, is just like opening the valve in the water pipe. In case of the water motor we get energy not from the water but from the motion, *pressure*, of the water. In the same way we get energy to run a machine, say, by electricity not from the electricity but from the *pressure* of the electricity. Thus electricity cannot be a form of energy in the sense that light is.

Maxwell concludes that electricity, must be something material, not material like stone or iron, but none the less material. It is somewhat as follows, writers put it thus:

Electricity is a constituent element of the all-pervading ether, mixed in it as water is in jelly. This electricity can remain quiet, as water in a pail; or it may move along in one direction in a conductor uniformly, as water does in a pipe; or it may rush first one way and then the other changing directions a few hundred times a second, as it does in an alternating current lighting system, or in the secondary of an induction coil; or it may oscillate to and fro in a similar manner a few million times a second, as it does in the discharge of a small Leyden jar through a wire. Now, the electricity in any of these cases of alternating or oscillatory discharge produces *periodic motions in the ether* all around the conductor, synchronous with the reversals of current. This harmonic motion of the ether is said to be just like that which we know as light. The wires in our houses from alternating dynamos "are affecting the ether" whenever they carry a current, but the waves are some miles in length instead of a few inches, and they cannot affect our eyes. To get light we cause an excess of current in a conductor and that heats it white hot.

We know nothing of the velocity with which electricity moves through the conducting wire. It may be only an inch a week. In the illustration of the water and water motor suppose the pumps are one mile away; if they stop the motor stops, when they start the motor starts at the same time, practically; but of course the water only communicates the motion with great rapidity while it moves very slowly itself. It is the same with electricity. Very likely the electricity moves with greatly varying velocities under varying conditions.

But the water moves because it is pushed from behind, nothing analogous to this pushing is concerned in the motion of electricity.

### Teachers' Association Meetings.

FEB. 20-22.—Department of Superintendence, N. E. A., Richmond, Va.  
FEB. 22.—Tuskegee meeting of officers and teachers of colored schools, at Tuskegee, Ala.

MARCH 9-10.—Southern Minnesota Association at the normal school, Mankato.

MARCH 29-30.—Wyoming State Teachers' Association, Rawlins.

APRIL 4-6.—Indiana Southern Association, Rockpoint.

APRIL 5-7.—Northern Indiana Association, Frankfort.

APRIL 5-6-7.—Joint meeting of the Northeastern and Southeastern Kansas Teachers' Associations.

JUNE 19-21.—Missouri State Teachers' Association at Pertle Springs, Warrensburg; Pres. Henning W. Prentiss, St. Louis, Mo.

JULY 6-13.—National Educational Association, most likely at Duluth, Minn.

DEC. 26-27-28.—South Dakota Educational Association, at Huron. Pres., R. S. Gleason, De Smet; Rec. Sec'y, Kate Taubman, Plankinton; Corr. Sec'y, I. F. Nickell, Huron; Treas., Harry L. Bras, Mitchell.

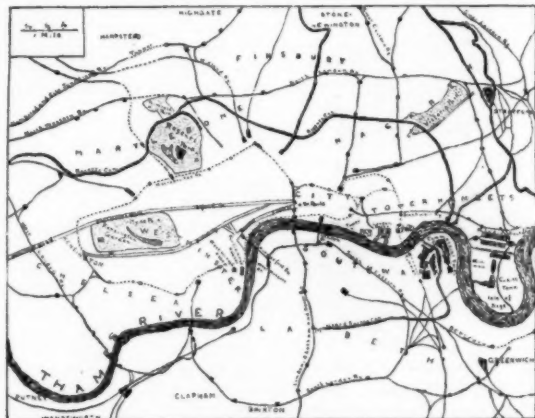
(Selected from OUR TIMES, monthly, 30c. a year.)

### Studies of Great Cities.

#### LONDON.

It is impossible in a brief article to describe the greatest city of modern times; only its leading features can be mentioned. The city is situated on both banks of the Thames river, almost at the head of tide water. The river which is from 700 to 1200 feet wide, has a great number of bridges, of which the most famous are the London, Waterloo, and Westminster. Several tunnels under the stream and bridges connect the railroads (underground and surface) north and south of the river.

It is difficult to define the boundaries of the city. The original city of London is a very small territory (see map) and now has a population of only about 50,000. With the marvelous growth in this century the population has increased in all directions and now takes in places that were once far outside the limits. The London postal district covers 250 square miles; the metropolitan police district 687 square miles and in this territory there was in 1891 a population of 5,633,332. The parliamentary London is much narrower, consisting of ten boroughs—City of London, Chelsea, Finsbury, Greenwich, Hackney, Lambeth, Marylebone, Southwark, Tower Hamlets, and Westminster. Generally the size of the city is determined by the operation of the municipal



local government. According to this London covers 122 square miles of territory in the counties of Middlesex, Surrey, and Kent, and has a population of about 4,500,000.

London is the financial center of the world, as it is also the commercial center. From her docks vessels go out to all parts of the world. There is always immense activity in loading and unloading at the East India, West India, Commercial, and London docks. London has monopolized the trade with the Indies and China; also with France and the Baltic ports. Liverpool is her rival, however, for the Mediterranean trade.

In manufacturing, London's preeminence is not so apparent, although her factories are various and extensive. The extent of the publishing business is indicated by the fact that there are in the city 2,200 firms engaged in the printing, publishing, or selling of books, etc. There is much ship-building on the Isle of Dogs. Among the other industries are engineering works, potteries, glass works, chemical works, breweries, and manufactories of silk, soap, watches, vinegar, coaches, furniture, and other articles.

London probably exhibits as great contrasts of wealth and poverty as any other city in the world. Not a stone's throw from that busy street, the Strand, may be seen as abject poverty and misery as in cities where intelligence and refinement do not reach so high a mark. The most notable buildings include the Parliament Houses, St. Paul's church, Westminster Abbey, and the Tower. There are plenty of breathing spots for the immense population centered here, including Hyde Park, Kensington garden, Victoria Park, and numerous squares, among which is Trafalgar square, a great meeting place for workmen.

The beginning of London may be traced back to Roman times. It was a Roman station in the time of Claudius; under Constantine the Great it was fortified. After the departure of the Romans it became the capital of the East Saxon Kingdom. It was granted a charter under William the Conqueror. In 1800 its population was a little less than a million. There has been a marvelous growth of all great cities in this century, but London has far outstripped the others. New York, Brooklyn, Philadelphia, Chicago, and Baltimore combined do not exceed it in population.

**The French Defeated.**—A French force was recently attacked by a large body of Tuaregs, near Timbuctoo and seventy-seven, including several white officers, were slain. The Tuaregs surprised their enemies while they were asleep. A few native rifle men saved themselves by flight from the general massacre. The French have sent reinforcements to Timbuctoo.



### The King of Abyssinia.

March 12, 1889, Menelek king of Shoa became the ruler of Abyssinia, a change that vastly increased his importance. Shoa was formerly a province of Abyssinia but gained its independence. It is situated between long. 38° and 40° 30' E. and lat. 8° 30' and 11° N. By the consolidation Menelek brought under his sway such large provinces to the north as Amhara and Tigré; he is not likely to underestimate his importance, for the king of Italy, having assumed a protectorate over a part of this territory, has found him inclined to violate certain portions of the treaty.

For a semi-barbaric ruler Menelek is remarkably intelligent. In physical appearance he is almost jet black, short, and fat. One of his peculiarities is a fondness for machinery of all kinds. He has ruined a dozen watches and alarm clocks by taking them apart and trying to put them together again. Several years ago the French government sent him through M. Chefnueux, a present of a mitrailleuse. The traveler, who reached the kingly residence several days after the weapon, found that Menelek had unpacked the weapon, put the parts together, and mounted it. Before he became king of Abyssinia he enlarged the boundaries of Shoa by conquering some of the fierce Galla tribes around him. He is said to have been particularly fortunate in the choice of his generals and other advisers, and has certainly shown wisdom in profiting by lessons taught him by more civilized countries. He does not like missionaries, however; he has imprisoned Swedish missionaries and expelled French Catholics and Germans.



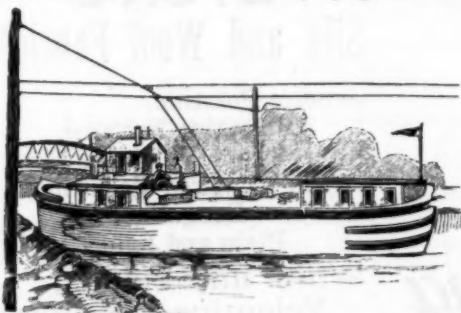
KING MENELEK, OF ABYSSINIA.

Abyssinia is an elevated tableland intersected by rivers that flow mostly to the Nile. On the lower lands wheat, cotton, maize, coffee, and rice are raised. The country has no foreign commerce, being separated from the Red sea by a desolate tract. Manufactures are limited to the commonest articles.

The Copts of Abyssinia are a mixed race, who probably came from Arabia. The rulers who governed them up to the fourth century claimed to be descended from Solomon and the queen of Sheba. Christianity was introduced about 350 A. D. and obtained a strong foothold. There are now many Mohammedans in the country. A large portion of the people are a mixture of many races—Ethiopians, Amharas, and Gallas—and are turbulent, warlike, and ignorant of civilization.

### A Canal Boat Moved by Electricity.

Mention has been made several times of the trial of electricity as a motor for canal boats. The accompanying illustration from



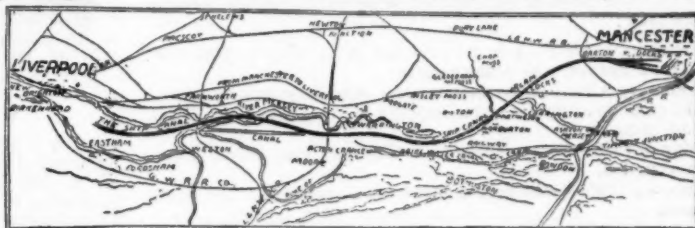
THE FIRST ELECTRIC CANAL BOAT.

*The World's Progress* shows the first canal boat ever run by electricity. The trial took place recently on the Erie canal at Rochester, N. Y. Two trolleys and two trolley wires were used, one furnishing the current and the other being the return wire to complete the circuit. In spite of the fact that only about 350

volts were received, and the further fact that the boat was heavily loaded, a large amount of ballast being in the hold and over 200 passengers aboard, very satisfactory speed was made, reaching at times a rate of four to five miles an hour. The course over which it ran was a mile long, and had several turns, besides passing through one lock, so that all conditions were met with which would be found in actual practice. The experiment probably settles the question of future canal locomotion.

### Manchester Now a Seaport.

On January 1 the Manchester ship canal was opened to public traffic. This means much for that busy manufacturing city. The



canal virtually makes a new seaport, a formidable rival to Liverpool, especially in the American cotton trade. Hitherto the re-loading of cargoes at Liverpool on cars, in order to transport them to Manchester, added much to the expense. The leading manufacturers of Manchester decided that they must have direct connection with the sea so that the largest vessels could sail directly to the city. Work was begun in 1886 with a capital of \$50,000,000. The course of thirty-six miles was divided into eight sections, and there were plans for five locks. During the progress of the work there were many difficulties, such as labor troubles, the bursting of dams and other accidents, etc. The enterprise was about to collapse for want of funds when the city came to the rescue and said it should be completed. It appealed to parliament for power to pledge the city taxes in order to borrow needed money. It was then estimated that \$7,500,000 would be sufficient; but this sum was soon found to be too small by half. Another application for the privilege of borrowing as much more was made. The project was transferred from the original company to the Manchester city council and the work was prosecuted with vigor. Twenty thousand men were employed at one time. Water was let into the last section Dec. 6. The cost of the canal has been about \$80,000,000. It is estimated that its revenue will be at least \$8,000,000 yearly.

### A New Literary Star.

Not since "Robert Elsmere" appeared has there been so much discussion over a novel as there has been over Mrs. Sarah Grand's "Heavenly Twins." The author was born of English parentage, with old Quaker stock on both sides, in Ireland, where her father held a coast guard's appointment. After her father's death, her mother returned to Yorkshire. Mrs. Grand's education was not very complete, for she married when she was only sixteen, but she enjoyed the benefit after that event of travel in Ceylon, China, and Japan. After five or six years abroad, Mrs. Grand returned to England, and after several years wrote "Ideals," her first printed novel. Some people prefer this book, which was printed at the author's expense, to the "Heavenly Twins." Two years were spent in writing the latter one, and three years were necessary to find a publisher sufficiently courageous to take the risk and the responsibility of its production.



MRS. SARAH GRAND.

### More World's Fairs.

Paris is preparing for another world's fair in 1900. The architects are already busy with their plans. An additional bridge will be built across the Seine, which will open a vista from the Place de la Concorde straight through to the palace of electricity. There will be a branch exhibition at Versailles. In the park in that city, on either side of the Grand canal, is to be the retrospective history of the gardens throughout the ages. There will be small models of the hanging gardens of Babylon, Japanese gardens, Persian gardens, the Italian garden of the renaissance, and French and English gardens of different epochs.

The grounds of the forthcoming Antwerp exposition cover 200 acres. The main building will cover 120,000 square yards.

The principal object of the international exposition to be held



in Vienna this year, lasting from April 20, to June 10, is to present a complete exhibition of all sorts of food products, whether fresh or preserved chiefly all kinds of meats, vegetables, dairy and bakers' products, as well as different methods of salting and pickling. Rational methods of bread-making and preparing food in large quantities will be in actual operation.

#### A List of Anarchist Outrages.

Europe is becoming thoroughly alarmed at the activity of the anarchists, and with much reason. Their efforts are not directed against monarchy merely, but against all organized government. They have therefore been justly called the "enemies of society." A Paris correspondent gives the following list of anarchist outrages since 1882:

October 21, 1882—A bomb exploded in the Theater Bellecour, at Lyons, France, with many victims.

February, 1882—Assassinations and incendiary fires on a large scale, committed by the secret society "Mano Negra," the Black Hand, in Spain.

May 3, 1886—Bomb explosion in Chicago; four killed, forty-two wounded.

July 19, 1886—Gallo fired a shot from a revolver in the Paris bourse.

October 5, 1886—Pillaging of the mansion of Mme. Madeleine Lemaire at Paris.

September 30, and November 10, 1888—Several attempts to blow up the offices of employment agencies in Paris.

January 21, 1892—Attempts at Xeres, Spain.

February 29, 1892—Explosion in the Sagan hotel or mansion, in Paris.

March 11, 1892—First attempt of Ravachol, in the Boulevard St. Germain Paris.

March 15, 1892—Explosion at the Lobau barracks, Paris.

March 28, 1892—Ravachol destroyed a house in the Rue de Clichy, Paris, by explosion.

April 25, 1892—Explosion in the Restaurant Véry, at Paris, two killed, four wounded.

July 20, 1892—Anarchistic attempts at Homestead.

November 3, 1892—Explosion in the Rue des Bons-Enfants, Paris, six killed.

September 24, 1893—The Anarchist Pallas threw a bomb at Marshal Martinez Campos, at Barcelona, Spain.

November 7, 1893—Explosion in the Lyceum theater, Barcelona, twenty-three killed, fifty wounded.

November 13, 1893—Attempted assassination of Georgevitch, Servian minister at Paris, by the Anarchist Léauthier.

December 9, 1893—Vaillant throw a bomb in the French chamber of deputies.

#### Federal Election Law Repealed.

The bill repealing the law providing for deputy United States marshals at the polls on election day was passed by the senate and promptly signed by President Cleveland.

#### Switzerland's New President.

M. Frei, the new president of the Swiss republic, comes from a well-known Basle family, several of whose members became famous.



M. FREI.

He came to America in 1860 and served in the war as a private, after which he raised a company for the Eighty-second Illinois infantry, which he commanded at Fredericksburg, Chancellorsville, and Gettysburg. He was commissioned major. At Gettysburg he was captured, and was imprisoned at Salisbury and Libby prison, being held there as hostage for the rebel. Captain Gordon, who was held under sentence of death at the North. At the close of the war he was honorably mustered out of service with the rank of colonel. On returning to Switzerland he became

a leader in science and politics. He holds that the mission of Switzerland is to show to the old world that order and progress are possible under a democratic government and that different peoples (as in Switzerland the French, Italian, and German) can live peaceably and happily together under a common government, although separated by mountains and streams, with different languages, different interests, and distinct nationalities.

#### The Tariff Bill.

The Wilson tariff bill passed the lower house of Congress by a vote of 204 to 140, a much larger majority than the friends of the measure expected. All the Democrats except seventeen, and most of the Populists, voted for it. It was then sent to the senate and referred to the finance committee. Chairman Voorhees gave notice that no hearing on the bill would be had, as this would greatly shorten the time necessary for its consideration before being presented to the senate. All parties agree that it will be better for business to hurry this bill through that body.

#### Chanler Retreats to the Coast.

Some time ago William Astor Chanler, a young New Yorker, started out on a scientific expedition in Africa, accompanied by an Austrian lieutenant of experience and a caravan of 200 rifles. He started from Lamu up the Tana river, intending to stop some weeks at the snow-capped mountain Kenia to take astronomical observations. Then he intended to cross the comparatively unknown region east of Rudolph lake, inhabited by many fierce tribes. The news now comes that his camels died and his porters deserted him, and that he was on his way to the coast. Considerable interest is felt in the work he did accomplish.

#### Another British Force Attacked by the French.

It was reported from Sierra Leone that a detachment of British military police encamped in the Sofa country were recently fired up-

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on by a French force. Several of the attacking party were captured. It will be remembered that another British force was fired on recently (by mistake it was claimed) near Warina. Was this last attack also a mistake?

#### Contract Labor on a Large Scale.

The Central and South American Oriental Company, of San Francisco, has just closed a contract with brokers in China to supply 30,000 Chinese laborers to planters in Central and South America. It has also closed a contract with the Peruvian consul-general, of San Francisco, to supply planters in Peru with 10,000 laborers recently arrived from China and Japan. The company was incorporated for the purpose of supplying laborers from China and Japan to the planters in Central and South America at a cost of \$100 for each Japanese laborer and \$150 for each Chinese.

#### How the Tide is Indicated.

It is very necessary that large vessels entering New York harbor should know the condition of the tide. In order to indicate its height the Coast Survey several months ago had erected on the wharf at Ft. Hamilton, at the entrance to the Narrows, the building of which an illustration is here given. On its top is an immense semi-circle with figures large enough to be seen by the aid of a glass from any part of the Narrows. The height of the tide



is indicated by a pointer that sweeps along the inner edge of the graduated half circle. The figures to the right represent the number of feet above the mean; if the pointer is on the left of the cipher it shows that the tide is below the average. By an ingenious arrangement an arrow head placed in the center of the disk is made to point up as long as the tide is rising and down when it is falling. The index pointer is moved by means of a cord or wire passing over a large wheel to the axis of which the pointer is fixed. One end of the cord is fastened to a float which moves up and down with the rise and fall of the tide. To the other end a counterpoise is fastened, so that, as will be easily understood, the wheel moves in one direction while the tide is falling and in the other when it is rising.

**French Designs in Madagascar.**—An expedition is fitting out for Madagascar. If the expedition reaches the Malagasy capital a treaty will be dictated, modeled on the one that placed Tunis under French protection.

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is rendered more wholesome and palatable if instead of using milk or cream you use the Gail Borden Eagle Brand Condensed Milk, or if you prefer it unsweetened, then Borden's Peerless Brand Evaporated Cream.

## New Books.

The numbers of the *Century Magazine* as they appear from month to month afford about as good an index as can be found of the literary and art culture of the nation. A large proportion of the best writers both in prose and poetry contribute to its pages; in fact, there are very few who have made an extensive reputation in the literary world who have not contributed at some time or other to this leading magazine. Its artists include many of the best in this country. The *Century* is not only a source of pleasure as each monthly instalment appears, it is of permanent interest. A bound file of the volumes would be one of the most prized and oftenest consulted in the library. The publication of the volumes, every six months, is looked forward to with interest. The volume containing the numbers from May to October, 1893, contains 960 pages; among the writers of prose are Mary Halleck Foote, Walter Camp, Edward Atkinson, F. Marion Crawford, Thomas A. Janvier, Henry Cabot Lodge, T. B. Aldrich, R. W. Gilder, Theodore Roosevelt, Harriet W. Preston, Mrs. Burton Harrison, and many others. The contributors of verse include Frank Dempster Sherman, Clinton Scollard, T. W. Higginson, Nathan Haskell Dole, Harriet Prescott Spofford, W. H. Hayne, Dora Read Goodale, R. W. Gilder, Edgar Fawcett, T. B. Aldrich, Edith M. Thomas, etc. Among the articles may be mentioned those relating to the World's fair. These, as well as many other articles, are illustrated in the best style of art. (The Century Company, New York.)

Part I. of *Supplementary Work in Arithmetic*, by Wm. M. Giffin, A. M., vice-principal of the Cook County normal school, treats of lines, area, and percentage. The plan adopted in this book is directly opposed to that parrotting of rules and tables that many of us were accustomed to in our younger days. The large number of charts presented give the pupils clearer ideas of the operations, and in reproducing them they find profitable employment. The object of chart 1 and 2 is to necessitate the use of the ruler by children and to lead them to exercise their judgment; they are to judge the length of lines and then verify. Charts 3, 4, and 5 review the fundamental operations, necessitate careful observation, the comparison of numbers, and make the child familiar with the names of the plane figures everywhere surrounding him. Charts 6, 7, 8, etc., continue the review, and also require the child to search out his own premises, as he must do in all future work, and to exercise his reasoning faculties. The book can scarcely fail to realize the author's wish that it shall prove a help to the teachers into whose hands it may fall. (A. Flanagan, Chicago.)

When about nine years ago Victor Hugo passed away, France lost probably the greatest genius she has produced this century. He wrote much and in a great many departments of literature, but there is a great difference between his best and his poorest work. A small volume of selections from his works where he reached high water mark has been made by Prof. F. M. Warren, of Adelbert college, who has furnished a biographical and critical introduction and copious notes. Part I. has selections from "Notre-Dame de Paris," "Les Misérables," and "Quatrevingt-Treize," and in Part II. numerous odes and ballads give one an idea of his qualities as a lyric poet. (Henry Holt & Co., New York.)

Sir Henry Roscoe, LL.D., and Joseph Lunt, B.Sc., have prepared a book, *Inorganic Chemistry for Beginners*, to supply the want of a work for those beginning the study of the science, in which the elementary principles of the science are treated with considerable fullness, while the number of the elements and their compounds is restricted to a few well-chosen examples. The ground covered by this book is confined to a portion only of the non-metallic elements. The descriptions of experiments that

## VACANCIES FOR SEPTEMBER.

Every day we are requested by authorities to recommend teachers for present and future openings. During the Spring and Summer months we are asked by School Boards, Superintendents, College Presidents and Principals, to recommend—often having as high as 25 or 30 such requests in a single day. We have already a large number of excellent openings for the school year beginning in September. Superintendencies, High School and Town Principalships, Grammar, Intermediate, Primary, and Kindergarten positions, College Professorships, Academy Principals and Instructors, Specialists in Music, Art, Drawing, Bookkeeping, Penmanship, French, German, Elocution, Manual Training, etc.

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are scattered through the book will be of great assistance to the pupil in pursuing his investigations, while the questions at the end of the chapters will help fix the main points in the mind. The book has one hundred and eight illustrations. (Macmillan & Co., New York and London. 75 cents.)

The modern way of making the acquisition of knowledge easy and pleasant instead of regarding it as a task to which the student is to be driven by frowns and blows is much more popular with the younger generation and is attended with better and more lasting results. For instance, everything is done now-a-days to make the study attractive. Among the means employed for this purpose is supplementary reading. *The Royal Atlas Readers*, consisting of a carefully graded series of six books, afford supplementary reading of the most profitable and interesting kind; the style is well adapted to the understanding of children, and the maps and illustrations are numerous and specially designed for elementary books. Reader No. 1 contains "Stories on Plans, Maps, and Compass;" No. 2, "Stories on Physical Geography, Geographical Terms," etc.; No. 3, "Geography of England in Reading Lessons;" No. 4, "The British Islands, British North America, and Australia;" No. 5, "Geography of Europe, latitude and Longitude, The Seasons," etc.; No. 6, "The British Empire." It will be seen that these books pertain largely to the geography of the British islands and British possessions, but for that very reason they will be all the more valuable in American schools by reason of their exhaustive treatment of subjects on which American books usually touch more lightly. Teachers should not fail to examine this beautiful series of readers. (T. Nelson & Sons, London, Edinburgh, and New York.)

Wallace C. Boyden, A. M., sub-master of the Boston normal school has prepared *A First Book in Algebra*, intended for the upper grades of grammar schools, though the work is adapted to all classes of beginners. In the preparation of the book it was taken for granted that the learner, before beginning this new branch of mathematics, shall have become reasonably familiar with the principles of arithmetic. In studying algebra the pupil will continue the work with numbers he has been doing, but two new elements are introduced—negative numbers and the representation of numbers by letters. He is introduced in this book to

these especial features of algebra so gradually and so many examples are provided that the task of familiarizing himself with the rudiments of the science is an easy and a pleasant one. Abundant practice is given in the representation of numbers by letters, and great care is taken to make clear the meaning of the minus sign as applied to a single number, together with the modes of operating upon negative numbers. The book deals with algebraic notation, operations (addition, subtraction, multiplication, and division), factors and multiples, fractions, and equations. It contains enough, including the minus problems, to make the student thoroughly acquainted with the fundamental principles of the science. The object has been to give the work in such a manner that he shall gain this knowledge by his own efforts. (Silver, Burdett & Co., Boston. 60 cents)

In many respects France is one of the most important and interesting of modern nations. Devastated time and time again by fierce wars it has shown its great recuperative power, due to the industry and frugality of the people. There are many things that may be learned from this nation, and therefore its history is an inviting field for the student. A history for lower schools written in a simple and at the same time lively and interesting style has been prepared, bearing the title of *A First History of France*. The maps show the boundaries and divisions of France at different periods; other illustrations are copies from old prints, etc., showing costumes, weapons, buildings, banners, and other things. The book will undoubtedly attain as great a popularity as the author's *First History of England*, *Stories from English History*, etc. (Longmans, Green & Co., London and New York. \$1.25.)

The March *St. Nicholas* will contain the first act of the new operetta by Palmer Cox, "The Brownies in Fairy Land."

Houghton, Mifflin & Co., of Boston, New York, and Chicago, have just issued a combination of three numbers of the Riverside Literature series which will appeal to every teacher. This book is carefully bound in linen covers, and its price is fifty cents, net. It consists of masterpieces of the three great American poets, Longfellow, Whittier, and Lowell, and contains Longfellow's *Evangeline* (No. 1); Whittier's *Snow-Bound*, *Among the Hills*, and *Songs of Labor* (No. 4); and Lowell's *Vision of Sir Launfal*, *Harvard Commemoration Ode*, *The First Snow Fall*, *The Oak*, and nine other poems (No. 30). There are also biographical sketches.

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The leading article in *Worthington's Magazine* for March entitled "Scenes in the Snake River Valley," by Professor G. Frederic Wright, of Oberlin college, is an account of a trip taken for scientific purposes through nearly the whole length of this strange and desolate region. His way lay over the shoulder of the Teton mountains which rise to a height of over 8,000 feet above the sea, and down into the great lava plains that stretch for hundreds of miles, with here and there the sentinel like cones of long-extinct volcanoes.

The March number of the *Forum* which, by the way, will begin volume XVII., will contain the sharpest and, it is believed, the most helpful discussion of the income tax that has anywhere appeared. The Hon. Uriel S. Hall, member of Congress from Missouri, who has made himself a great authority on this subject, will write in favor of it; and Mr. David A. Wells against it. The same number of the *Forum* will contain the first of a series of articles on different systems of socialism or communism that are favored by different groups of agitators in the United States; Mr. Edward Bellamy will explain definitely the program of the Nationalists, and Professor William G. Sumner, of Yale university, will criticize this program showing its impracticability. Another striking article that will appear in this number will be a searching inquiry into the causes of railroad failures in 1893, by Mr. Simon Steine.

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the report proves correct (it being the first report to reach us) and if we fill the vacancy, we will pay you \$5. You can easily report 40 or 50 positions during the season and we can fill from 10 to 20 of them, making an increase to your income of from \$50 to \$100. We will also give you credit for \$1 toward a membership in our association, for the first 5 correct reports of vacancies. This offer is made especially to lady teachers, as they above all others most need additions to their incomes. It is not open to any superintendent who would consider it a bribe. We use our knowledge of coming vacancies for the good of the teachers and to make money. If any lady teacher desires to do the same in a small way and will send us notices, early, it benefits us and many fellow teachers who will thus be enabled to find "just the right position." Address The Teachers' Co-operative Association, 6034 Woodlawn Ave., Chicago.

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## General Notes.

With its January number, Goldthwaite's Geographical Magazine (27 East Twenty-first street) entered its sixth volume. Its subscription price is now only \$1, but the contents continue to embrace topics of the living present. Mashonaland, Andorra, Alaska, and the death of Sir Samuel Barker are among the January topics. Goldthwaite's is illustrated.

"Almost 500 years after Chaucer ceased to write," says *The Athenaeum*, "we are promised the first complete edition of his works in prose and verse. Prof. Skeat has devoted to it the labor of several years, and his first volume, containing a life of Chaucer, a list of his works, the 'Romaunt of the Rose' and the 'Minor Poems,' with full introductions and notes, will appear before long. The work will be completed in six volumes. The 'Oxford Chaucer' will be published by the Clarendon Press, and will match the standard edition of 'Piers the Plowman,' by the same editor."

Do not imagine that because it is impossible to go away from home to school it is useless to think of learning French or other studies that help to brighten the mind. The study of French can be pursued at home by using the new method, "French, with or without a Master," of Berlitz & Co., Madison square, N. Y. If somewhat acquainted with French, subscribe to *Le Français*, a French monthly magazine, containing annotated comedies, novels, sketches, etc., also exercises which are corrected free of charge.

There is an old saying that, "The early bird catches the worm;" to which some wag replies that, "It is very imprudent in the worm to get up so early." However there is no question that those teachers who wish to have their choice of positions for next year should apply to a good agency now. The Teachers' Co-operative Association, 6034 Woodlawn avenue, Chicago, are every day requested by authorities to recommend teachers for present and future openings. During the spring and summer months they are asked by school boards, superintendents, college presidents, and principals, to recommend—often having as high as 25 or 30 such requests in a single day. They have already a large number of excellent openings for the school year beginning in September.

The log school-houses and slab benches of our grandfathers' day are rarely found now, except perhaps in some out-of-the-way localities in the newer states. In their places are fine school-houses well fitted up with the best of furniture and appliances, such as may be obtained of J. W. Schermerhorn & Co., dealers in kindergarten and school supplies, 3 East 14th street, N. Y.

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Lieutenant Peary, the famous Arctic explorer, was the first of the hardy adventurers who have pushed to the far north, to make a complete photographic record of his trip. He carried several Kodaks on his journey and took more than 2,000 views, of Eskimo life, barren ice caps, sea lions, and icy cliffs. He tells in an interesting manner of his photographic experiences in a little book he has written entitled, "The Kodak at the North Pole." The booklet will be mailed free, on application to the Eastman Kodak Co., Rochester, N. Y.

The longest single span of wire in the world is used for the telegraph line, and is stretched over the river Kistuah, between Bezorah and Sectanazoum, India. It is over 60,000 feet long, and is stretched from the top of one mountain to that of another.

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